

SEPTEMBER / 1958

THE MANAGEMENT REVIEW

THE MONTH'S BEST IN BUSINESS READING...

DIGESTS / FEATURE ARTICLES / BOOK REVIEWS

Special Features:

The Industrial Climate for Creativity

Common Sense About Cutting Costs

*Office Automation: Is Management Getting
Its Money's Worth?*

The Organization Lamb and Other Corporate Creatures

AMERICAN MANAGEMENT ASSOCIATION

Special Finance Conference . . .

TIMING THE UPTURN

Evaluating and Using Business Indicators

October 15-17, 1958 • Roosevelt Hotel • New York

MOST MANAGERS are convinced that a major business upturn is coming, but they disagree about how soon it will come and how strong it will be.

At this Special Finance Conference, leading business authorities and economists will examine the tools that are available for forecasting economic trends and turns. They will show how these business indicators have been used . . . how successful they have been . . . how the individual manager should approach them.

Here are some of the key topics that will be featured:

- **Three top economists appraise the coming boom**
- **The impact of foreign developments on the economy**
- **The role of consumer credit**
- **The stock market as a business indicator**
- **The costs of poor timing**
- **How to interpret business indicators**

This Conference will give you a more accurate understanding of the business indicators that determine economic forecasts. You'll have a better foundation for adjusting and timing your own company's plans for meeting changing economic conditions.

You won't want to miss this timely, stimulating Conference. Make your plans to attend now. Address Dept. M9, Finance Division, AMA.

AMERICAN MANAGEMENT ASSOCIATION, INC.
1515 Broadway • Times Square • New York 36, N.Y.

A large, bold checkmark is positioned to the left of a stack of several papers. The papers are fanned out, showing various text and diagrams, and are resting on a dark, shadowed surface.

in this issue . . .

- **Creativity and Competition.** Significantly, at the very time when budgets were most under fire, companies that went on record during recent months about their plans to outpace the recession announced larger—not smaller—appropriations for research and development, and greater emphasis than ever before on product improvements, new products, new ideas. For management now recognizes that it needs creativity—that the leading companies a few years hence will be those that have somehow managed to innovate their way to the forefront. Of particular interest, therefore, is this month's feature survey in which 105 experts evaluate *The Industrial Climate for Creativity* and tell what must be done to make it more favorable.
- **Cost Reduction or Profit Improvement?** Not all budget revisions have, of course, resulted in spending where it will do the most good and in reductions that will never be felt. The article titled *Common Sense About Cutting Costs* (page 9) makes the case against indiscriminate cutting and explores more productive ways of staying competitive.
- **Hitch in Office Automation.** Many companies that have installed electronic data processing equipment are not getting their money's worth, according to JOHN DIEBOLD (page 14) because they are confining their use to isolated projects rather than reorganizing their entire office systems around them. The situation so far, in other words, is something akin to using a sledge hammer to crack peanuts.
- **And speaking of peanuts,** this month's cartoon feature (page 19) revisits the management menagerie and finds some interesting new inhabitants—in the shape of *The Organization Lamb and Other Corporate Creatures*.

—THE EDITORS

SEPTEMBER 1958

Volume XLVII, No. 9

THE MANAGEMENT REVIEW

FEATURES

- 4 The Industrial Climate for Creativity: An Opinion
Study of 105 Experts
by Eugene Raudsepp
- 9 Common Sense About Cutting Costs
by Edward L. Adams, Jr.
- 14 Office Automation: Is Management Getting Its
Money's Worth?
by John Diebold
- 19 The Organization Lamb and Other Corporate Creatures
A cartoon feature

BUSINESS DIGESTS OF THE MONTH

Trends and perspectives

- 23 The Ceiling on Selling (*Fortune*)
- 36 Product Liability Insurance—a Growing Necessity?
(*Management Methods*)
- 38 Apprentice Programs: Can They Ease the Skilled Worker
Shortage? (*Steel*)
- 50 Union Members Make Themselves Heard (*The Iron Age*)

Management policy and practice

- 30 Making Cash Work Overtime (*Business Week*)
- 44 Should Industry Do More Basic Research?
(*Harvard Business Review*)
- 47 Are Your Marketing Dollars Going to Waste?
(*Indiana Business Review*)
- 55 Today's Supervisor: Still Management's First Line
(*Personnel Policies Forum*)

Operating guides for executives

- 26 Reorganizing Without Regret: A Six-Step Program
(*Dun's Review and Modern Industry*)
- 41 Calling Consumers to the Colors (*Sales Management*)
- 52 Selling More Effectively Through Trade Fairs
(*International Management Digest*)
- 59 Company Cliques: They Can Become an Asset
(*Nation's Business*)

What others are doing

- 33 New Techniques in Industrial Packaging (*Commerce*)
- 63 Employee Health Programs in Industry—A Survey
(*Industrial Nurses Journal*)

DEPARTMENTS

Also Recommended —page 65

Brief summaries of other timely articles

Survey of Books for Executives —page 82

Cover photograph: H. Armstrong Roberts

HARWOOD F. MERRILL, *Editorial Director*
VIVIENNE MARQUIS, *Editor*
ROBERT F. GUDER, *Managing Editor*
PETER REID, *Digest Editor*
LYDIA STRONG, *Contributing Editor*
JULIET M. HALFORD, *Book Review Editor*

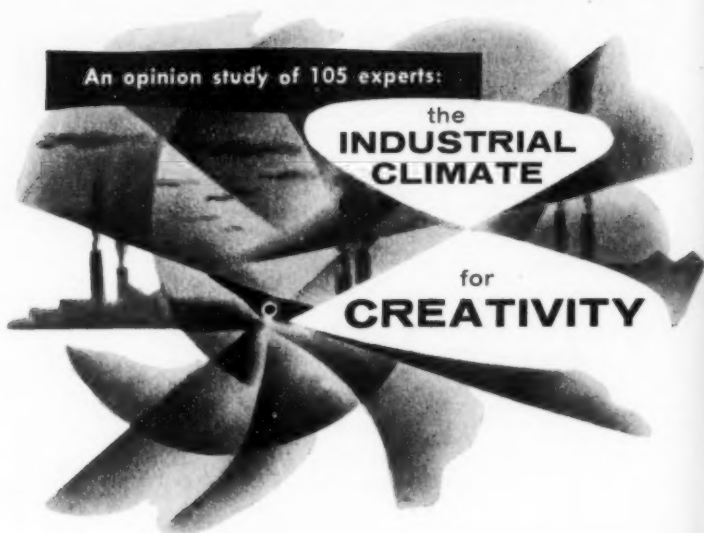
THE MANAGEMENT REVIEW is published monthly by the American Management Association, Inc., at 1515 Broadway, Times Square, New York 36, N. Y. Entered as second-class matter March 26, 1925, at the Post Office at New York, N. Y., under the act of March 3, 1879. Subscriptions: \$7.50 per year (nonmembers, \$12.50). Single copies: \$1.00 (nonmembers, \$1.25). Volume XLVII, No. 9, September, 1958.

Changes of address should be forwarded to the publishers *six weeks in advance*, and postal zone numbers should be included in all addresses.

The American Management Association does not stand sponsor for views expressed by authors in articles issued in or as its publications.

An index to THE MANAGEMENT REVIEW is published annually with the December issue. The contents are also indexed in the Industrial Arts Index. THE MANAGEMENT REVIEW is microfilmed by University Microfilms, Ann Arbor, Mich.

Copyright © 1958 by American Management Association, Inc.



■ **Eugene Raudsepp**
Deutsch & Shea, Inc.

THE SUBJECT OF CREATIVITY has come into its own in the past year or so—and with good reason. In analyzing the dynamics of past growth and in developing long-range plans for the future, management has made some startling discoveries about the role that innovation has played in corporate success. Some managements have estimated that as much as 80 per cent of their sales volume comes from products unknown to the market a decade ago. More than 35 per cent of the entire Gross National Product has been attributed to research and development within the past 15 years. Is it any wonder, then, that a company like General Electric expects to invest more for research and development in 1958 than the total of the company's earnings? Or that R&D has become something of a household word within management of late?

As a natural result, more attention has been given than ever before to the creative processes—to the selection of creative people, to courses in creative thinking, to techniques (such as brainstorming) which purport to stimulate creativity. And yet we may well ask how effective all this preoccupation with creativity has been.

Have we tended to view creativity as a kind of abstract entity, somehow divorced from the people who are expected to come up with all the new ideas? Has the interest been more in the trick, the quick method, or the mechanical formula, rather than in the more difficult and important task of establishing a climate that will bring out the best in people and encourage sustained creative performance?

With these questions in mind, the author, under the sponsorship of *Industrial Relations News*, an affiliate of Deutsch and Shea, Inc., recently asked 105 experts in the area of creativity—top people who are actively engaged in the field—to indicate in what ways they are satisfied or dissatisfied with the encouragement for creativity and invention that is currently being given to technical people in industry.

THE PANEL

The 105 experts contacted for this survey are all connected, in one way or another, with either investigating creativity, teaching creative thinking courses, serving as consultants to industry in the area of creative research and management, or with direction of advanced research and development work. Many of them have made significant contributions in extending our understanding of creativity and have achieved distinction in the field. The sample included 32 individuals connected with various universities: 17 psychologists and social scientists, 2 psychiatrists, 7 professors of engineering and science, and others in the fields of industrial management, industrial relations, education, marketing, humanities and architecture. Eleven of the experts are connected with research foundations, independent research institutions, and consulting organizations. The majority of the participants, however, are in industry: 33 serve as managers and directors of research and development, 16 are in charge of training and education and give courses in creative thinking techniques. Six conduct personnel and management research, and the remaining seven are practicing scientists and engineers.

The statements of the panelists represent their personal opinions, of course, and do not necessarily reflect the views of their organizations.

Hardly more than 10 per cent of the panelists stated that they are satisfied with the encouragement given for creativity to technical people in industry. The overwhelming majority, who expressed general dissatisfaction with the industrial climate for creativity, felt that creative people are still the "marginal men" of industry, that their value is not fully appreciated, and that creativity occurs often *in spite of* the prevailing climate and the lack of external stimuli for invention. Illustrative of this line of thinking are the following comments:

Hugh P. McGee, Head of Special Applications Branch, U.S. Navy Underwater Sound Laboratory: The encouragement now given is so slight that creativeness occurs only in those people who of themselves *have* to create, or are high in ambition.

Professor John E. Arnold of Stanford University: In many cases, invention is not wanted. And in the places where it is wanted, many obstacles to invention are set up, and they negate any inducement to invention.

Manager of a communications department at a large electronics company: By and large, I am not satisfied with the encouragement for inventions in industry. Great strides have been made in the past few years, but many of the larger companies still seem to "bleed" their best scientific people.

Perry R. Mason, Course Development Engineer, Creative Engineering Program, General Electric Company: Many creative people in technical work are discouraged because their creative contributions are not properly evaluated, are not given encouraging support, or are not greeted as important or necessary contributions.

A manager of engineering personnel at a multiplant company: We have not yet really discovered how to fit the creative people into our operating plans in a way that will satisfy them and top management.

A. H. Nicholson, Director of Design, The Federal Glass Company: Some industries are ready to acknowledge publicly the contributions of their research people. But too many organizations seem to soft-pedal and attempt to hide from the contributor the full value of his contribution.

PREOCCUPATION WITH IMMEDIATE PAYOFF

High among the specific reasons why panelists felt disenchanting with industry's encouragement of creative expression was the feeling that management is still hesitant about giving its full support to long-range, basic research. Several panelists pointed out that the challenges given to technical people are too specific and well defined to result in significant creative contributions. Following are a few statements that reflect this feeling:

Professor Silvan S. Tomkins of Princeton University: There is too much emphasis on the immediate payoff.

A consultant to industry in creative research: Encouragement? Is there any except on a gadgetary or applied basis?

Professor Boyd R. McCandless of State University of Iowa: Much of industry is still short-sighted about giving recognition and support to basic research. Those of my friends who have been unhappy in industry have mentioned this as the biggest reason for their unhappiness.

Possibly one of the main reasons for this preoccupation with immediacy was indicated by James Birnie, General Director of Styling and Design at Reynolds Metals Company: "American industry very definitely puts much greater emphasis on selling ability than invention. It is obvious in most industrial firms that the creative and technical groups are looked on as a necessary evil. 'Getting the order' seems to overshadow all other interests." As the result, a premium is placed on expedient ingenuity for practical and relatively short-range projects and ideas, the results of which are fully predictable. The recognition is growing, however, that top-level creativity does not thrive in an atmosphere of pressure and urgency, where the chief preoccupation is too developmental, too narrowly practical or utilitarian. For example, Hyman Kirtchik, a chemical specialist at General Electric Company, stated:

Product orientation stifles creative talents. Many scientists are now working on projects for the short range. . . . Unfortunately, top management erroneously believes that the main purpose of research is to turn out hardware that can be polished and passed around. This is extremely disturbing to research people whose product may be a paper or report or a series of failures for several years before the work, materialistic or otherwise, ends in fruition.

Essentially the same thought was also expressed by Gordon C. Lange, executive director of Swarthmore Creative and Development Services:

The trouble with top management is that it keeps looking for practical ideas when a really new idea can hardly if ever be practical by its very nature. Only its development will make it practical.

One panelist, Dr. Herbert A. Shepard of Esso Standard Oil Company, has eloquently described how the fact that research and management operate in different time perspectives has contributed to friction between the two:

Companies operate on annual budgets, but research and development projects are likely to go on for years without producing useful results. It may take a long time to investigate a research problem

even to the point of estimating the probabilities of eventual solution, and this is a source of strain between scientist and businessman. Management is frustrated by its inability to determine whether progress on a project is as good as could be expected; the research staff is frustrated by management's inability to understand the nature of the technical problem. This communication gap can lead to demoralization of the research staff and to a loss of confidence on the part of management. Or it may lead to more complicated states of affairs. For example, the laboratory may report only on those projects in which it can show the kind of progress that management understands, other research activities being "smuggled."

STATUS AND COMPENSATION PROBLEMS

Since creative research frequently results in products which "cannot be polished and passed around," the researcher's value for the company is not fully recognized. Because the value coming out of the research department is not as tangible or concrete as that which development produces, the prestige and status accorded to it is frequently negligible. Several panelists indicated their concern over the prestige and status research experiences in industry:

A staff engineer: It seems to me that industry could do more to encourage creativity and invention. The most important encouragement would come about if the prestige and status of a creative person were given more attention. Industry in this country could benefit by studying some of the European methods for recognizing creativity and inventions.

The creative scientist or engineer rarely receives the recognition he deserves, except, perhaps, among his own professional groups. But aside from the questions of status and prestige, several panelists felt that the creative scientist is also financially penalized and that a more equitable evaluation of his contributions is in order:

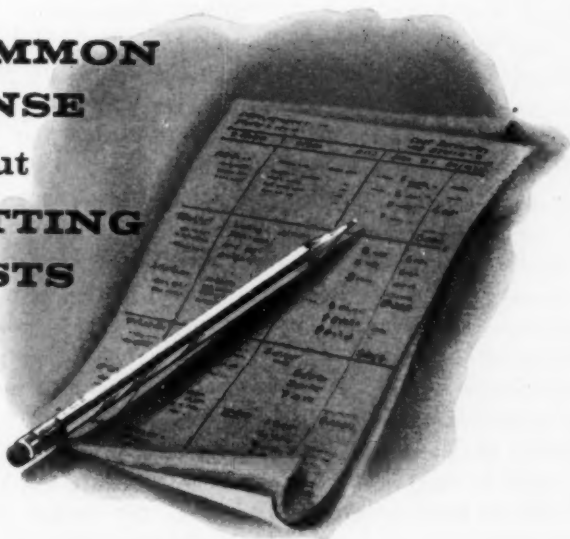
Professor S. B. Hammond of the University of Utah: Creative people, like school teachers, are too often taken for granted when salaries are concerned. A good creative engineer or scientist is worth the salary of top management.

Dr. Leo Steig of General Electric Company: I believe that encouragement for invention should be financial and should be graduated with the importance of the invention. Generally, assessment of the future impact of a given invention leaves much to be desired.

The panelists who felt satisfied with the financial rewards presently given pointed out that frequently this is the only form of encouragement given:

(Continued on page 70)

COMMON SENSE about CUTTING COSTS



■ *Edward L. Adams, Jr.*

THE ANTIDOTE for a poor profit picture is not necessarily cost reduction, and it is never indiscriminate cost reduction. Yet this too often becomes the obsession, the only recognized course of action for managements that are panicked either by generally contracting economic conditions or by unsatisfactory earnings in their own companies.

What separates the sheep from the goats, the winners from the losers, among companies in periods of financial crisis? The answer must certainly lie in management policy—which inevitably reflects the decisions and attitudes of the people in key positions. By and large, men who have achieved a certain amount of success can perform creditably under normal or favorable conditions. But some special attributes are needed in times of emergency. In order to identify these, we must first understand the deeply personal meaning of

financial threat to the man who carries a major responsibility for the company's welfare.

Generally speaking, the higher a manager's job, the stronger his feelings of personal responsibility for the company's performance. It does not matter much how other organizations are faring or whether stockholders are critical or confident; the man in a key position finds it difficult to avoid feelings of personal guilt if the business is losing momentum. As he scans the horizon, a perceived threat to the well-being of the company becomes a very real threat to him—not necessarily in a financial sense, but in a much deeper and more personal sense. He feels himself challenged, in danger.

THE "DEFENSIVE SYNDROME"

Faced with such a situation, managers too often go to extremes. Some are unable to do anything but cling desperately to the simplest established routines that seem safe because they worked in the past. Others make frenzied attempts to improve their profit picture by cutting every cost in sight, regardless of the effect on future income. In the one case, the threat of economic danger leaves the manager a sitting duck for competition because he has lost all flexibility and resourcefulness. In the other, the manager is panicked into actions that are self-destructive in their own right. In either case, he forfeits whatever advantages he might have had at his disposal and is strictly on the defensive from there on out.

The white hope, for managers on the defensive, almost always seems to be impulsive and indiscriminate cost cutting. Overwhelmed by their expenses, they conclude suddenly that any item not directly related to the source of income is an extravagance. Customer services, employee services, research and development functions, administrative personnel and equipment, quality control procedures, training programs, and any formal planning or organizational building activities are luxuries they can no longer afford. They retrench on everything but the basic production or service activity, and even here personnel and equipment are likely to be spread so thin that normal quality standards cannot be maintained.

Is this the way to remain healthy in the face of economic pressures? It seems unlikely. Economic threat is a condition that obtains when potential customers reduce their buying of a given prod-

uct or service. In most cases, potential customers still exist, but they are fewer in number or their purchases are more limited, and competition for their buying dollars becomes intensified. Under such conditions, customers can shop around for the best buy and the traditional buyer's criteria become more important. Buyers seek the best possible combination of the following factors: (1) high quality, (2) low price, (3) guaranteed time and conditions of delivery, and (4) reliable service (if this is involved in the purchase).

QUALITY IS THE ANSWER

Indiscriminate cost reduction will usually kill whatever remaining chance a supplier has to satisfy the demands of potential customers. What is needed is more, rather than less, attention to product quality and related factors. This is never achieved by resort to the economy ax, though many economies obviously can be effected without loss of quality. The problem is to identify a positive, productive program of quality improvement within an over-all framework of cost reduction that can lead to sound price reductions. In large measure, the solution lies in the truism that it takes quality to secure quality. Quality in people, machinery, and methods can always turn out a better, more attractive product—frequently at a lower cost. Poor quality in people, machinery and methods is usually so wasteful that it takes more people and machines and more complicated methods to turn out even a second-rate product.

Some managers, however, simply cannot understand that they need to spend money (for quality) in order to reduce costs and achieve a profitable operation. They try to get along with antiquated machines, ignoring the expense and additional effort it takes to keep them running at all, and the mediocre end-product. They reduce maintenance to the point where machine down-time seriously interferes with production. They curtail forward research, planning, design, and quality controls to a point where they become ineffectual. Employee and customer services are pared to the bone, thus creating resentment and resistance. And most self-defeating of all, there is a marked tendency to eliminate people, not on the basis of careful analysis and planning, but by arbitrary decree. Thus, in machines, services and people, short-sighted economies are effected that can eventually put a company out of business.

Managers who allow themselves to fall into this negative cycle are lacking in one or more of the qualities that are essential for surmounting economic pressures. They are fearful rather than courageous, and this leads them to a constricted, defensive view of their problem. They do not think clearly and analytically enough to recognize that the key to survival under economic pressures is first and foremost emphasis on *quality* in every phase of their operation. And finally, they lack the imagination to see the ways in which they can make money by spending money on quality.

Let there be no misunderstanding. Cost reduction as applied to the unnecessary expenses that creep into any operation during good times is a very justifiable and useful tool—if it is used with skill and insight. The limitations of the tool must be understood, however, and the user must have a clear understanding of the ultimate purpose for which the tool is employed. When he keeps steadfastly in his mind the objective of gaining an advantage over others who are competing for the contracting market, he will cut his costs only so far as he can convert his saving into price reductions for his product without jeopardizing quality. *For sales volume under contracting economic conditions is created by managers who offer customers the highest quality in all respects for the lowest possible price.* Cost-cutting, taken by itself, is basically a negative way out. A more positive approach would be to think analytically and creatively about the source of both quality and cost—namely, people.

PEOPLE—THE KEY TO QUALITY

People—the human resources of the business—represent a tremendous potential for profit or loss in any company. Most managers have been able to demonstrate an understanding of the principles involved in making dollars and machines work to their advantage. Some, however, have not brought the same understanding to the problem of making the most productive use of human resources. Yet by their solutions to this problem, the winners are separated from the losers among managers.

Strong and creative managers recognize the use of human resources as the greatest potential means of quality improvement, cost saving, and organization of the company to take advantage of bet-

ter times ahead. These managers use every means at their command to insure that they have the best qualified people available on their team; and having assured themselves of this, they concentrate on providing working conditions that will keep top-flight personnel working together productively as a team.

Their opposite numbers in management pride themselves on having a "hard-headed" attitude toward people—which usually means that they eliminate the creative members of the group in favor of the more "muscular" ones and so drastically reduce all indirect services that the remaining members have nothing to work with but frustration.

CONCERN WITH PEOPLE CAN BE "HARD-HEADED"

The notion is still rather widespread, in fact, that concern for people is soft-hearted and soft-headed. It's all right when business is good but simply isn't practical when the going gets rough. In a few companies, all programs concerned with people per se have come to a screeching halt with the first hint of financial strain. One even detects a note of self-righteousness in the attitude of the manager who prides himself in having done away with "the frills."

Managers who look below the surface, however, recognize that concern for people is, at the least, a matter of enlightened self-interest. They are not trying to be "do-gooders" or to impress anyone with their generosity. They simply understand that both quality and costs originate in people. High-quality people, carefully selected for their jobs, do high-quality work within reasonable cost limits; poor-quality people do poor-quality work, and costs mount through lost time, duplication of effort, scrap, and all the rest.

Thus, while a business may be able to afford indifference about people in good times, economic pressures make it absolutely essential to get the best efforts out of every person on the payroll. And the higher the level, the more important this becomes. Realizing this, progressive management is learning to look hard and objectively at itself first.

Specifically, this means taking stock of the individual strengths and weaknesses of everyone in a responsible position and comparing these with the qualities most needed for the job ahead. The

(Continued on page 76)



Is management getting its money's worth?

■ John Diebold

**The vast potential of EDP demands a new
approach to education and training . . .**

MANAGEMENT has been too uncritical in accepting the machine as the whole substance of automation. Today, we possess large numbers of splendid new machines as technically complex and powerful as any man has ever built. In this country alone, well over 1,000 computers are already in operation. But extremely few of these machines are being used in a way that even begins to exploit their full potential. All but a tiny fraction are doing precisely what was done equally well—and, in many cases, at far less cost—by punched card machines or even by hand. This is an almost unequalled example of sheer waste of a great business resource.

Month in and month out, the businessman reads that the ultimate in automation is the computer—a fascinating, intricate machine that can do arithmetic at the speed of light. This machine, he is told, is the answer to a personnel manager's prayer: It never makes a

Based on a Great Issues lecture delivered at Dartmouth College.

mistake, or gets a headache in the middle of the afternoon, or leaves its department short of help because it has decided to get married.

THE COMPUTER IS A TOOL

He is seldom told that anything the machines can do to relieve a shortage of clerks is trivial compared with what they could do to improve the way his business runs. And he is seldom told that the machines are the least important aspect of automation. He does not understand that a computer is not, by itself, automation; however big and fancy it may be, it is nothing more than a tool, just as surely as a hammer or a wrench or a typewriter or an adding machine is a tool.

Why are these wonderful machines being so ineffectively used? It is because there is virtually no realization of the magnitude of the task of using them properly and little understanding at all of how to use them to solve management problems. Consequently, there is an urgent need for basic education to train the men and women in business—not just in how to work the machines, but in the far more difficult task of how to employ them properly and profitably.

The machines of automation are only symbols of fundamental developments that are taking place in the way we organize our world. The training of management personnel must reflect this fact. But such education programs as have accompanied automation hardly even begin to reflect it because businessmen who understand this themselves are as rare as whooping cranes.

Preoccupation with hardware is by no means unique to automation. It was true of the first industrial revolution as well. The symbol of that great movement was power-driven machinery. But, as Paul Mantoux points out in his excellent study, *The Industrial Revolution in the Eighteenth Century*: “. . . the use of machinery itself, important as are its consequences, is only a secondary phenomenon.”

It was the changes in human organization, in this case division of labor and the exchange of commodities, that were the revolution. Power-driven machinery was the tool that made the revolution possible and made it work.

To get some idea of the extent and depth of the changes that are starting to take place through automation, think for a moment of all that is implied in the concept of an integrated system of work. For example, a single computing machine is capable of performing many operations at once. This beguilingly simple concept is revolutionary in its meaning and implies a fundamental change in the way we have been doing business for the last two hundred years. It is in direct conflict with the very concept of the division of labor, which has been the key to business organization from the time of Adam Smith's pin factory to today's jet engine production line.

The division of labor, the breakdown of work into simple elements which can be performed repetitively and efficiently, was the great organizational achievement of the factory system that began in the 1750's. It was the division of labor that made it possible for the one-man shop of the artisan and the one-man office of the eighteenth century to grow into the complex modern business organization.

As machines appeared, they were simply inserted into the process to mechanize specific skills. The result is that offices, as well as factories, are organized by functions. Payroll preparation, billing, accounts payable, cost and financial accounting are handled by separate people or separate departments, and where they have been mechanized they are mechanized in the same way.

Even the introduction of punched card machinery in the form of central processing units has not changed this organization. The same machines may be used to process all types of work, but the jobs are still run separately and are only related to one another in the most general way. The tabulating room, for instance, will make a payroll run, followed by a cost distribution run, then a payable run, each one handled as if it were an entirely separate job.

ORGANIZING FOR INTEGRATION

Automation and its related technology present us with the means to build a machine system that can handle a great number of information-processing tasks simultaneously. For example, processing new orders, scheduling production, checking raw materials inventory, placing orders for new material, cost distribution, and

machine loading can all be handled as part of the same interrelated problem—which, of course, they really are. What this means is that we now have the ability to organize our work in closer relation to reality. We no longer need to make the organization of paper work as much of an abstraction from day-to-day happenings as it has always been.

In order actually to do this, however, the businessman is faced with a wholesale reorganization of work, the likes of which he has never before even had to contemplate. If he uses the new machines of automation just to do more rapidly tomorrow what he is already doing today, he will not have come to grips with the problem; worse, he will have let slip the opportunity of his business lifetime.

At the start, and for quite a few more years, the practical solution to this problem is going to have to come from business itself. There is no hope, in the immediate future, that the buck can be passed along to the colleges and high schools. In time, if business understands what its needs truly are and makes these needs known, the educational system will begin to produce young men and women who are trained not just to use automation equipment, but to understand the potentials of automation as well.

But as things stand, most of the people who must accomplish the crucial task of administering the conversion to automation, and those who are going to be living and working in a world at least partly automated, are men and women who have already completed their formal education and are now working in business and industry. The responsibility for training these people is largely that of private business, and the task is a far larger one than most managements as yet realize.

WHAT BUSINESSMEN MUST LEARN

Current attempts at training in data processing depend largely on the courses in how to use the machines that equipment manufacturers give to their customers' personnel and on a few similar university extension programs. Such training is almost always tied to the machines of automation, and it is hardly adequate even to develop a proper understanding of the machines. It rarely begins to indicate the problem of how to apply them. Moreover, these schools are tied not only to machines, which is bad enough, but to the

machines of one particular manufacturer. Attending only one of these schools is something like expecting to learn all about political science by spending a few weeks in the local Republican or Democratic headquarters.

What is needed is training that is more basic, broader in scope, more intensive, given in greater depth. The success of a computer installation depends only partly on adequate technical training in programming for those who will actually convert a given business task to machine instructions. Even this is a training problem that requires many months of on-the-job instruction beyond the scant month or two in a manufacturer's school, if a prudent businessman is to feel confident that the success or failure of the entire program is not just a gamble. A successful computer installation depends even more on training in depth many individuals within the organization who are not directly involved in any way with the machine or its operation.

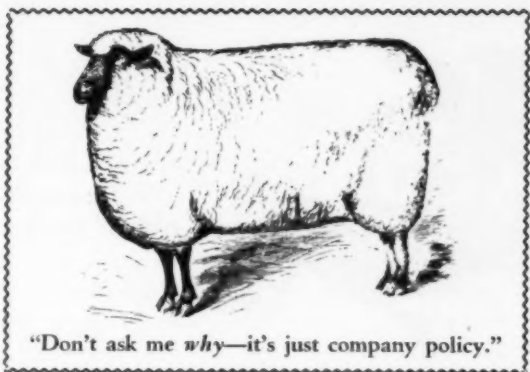
For example, the sales manager must understand a good deal about what a computer can do if he is even to begin to take advantage of its powerful potential for producing new kinds of market and distribution analysis. It is the sales manager, not the head of the data-processing center, who knows what sales information is critical. The computer man can only present what he thinks the sales manager needs. This is equally true of production control, of cost and financial accounting—indeed, of virtually all areas of business management.

MANAGERS—NOT MATHEMATICIANS

Education in breadth as well as in depth is needed if top management is to know how to specify its requirements and if middle management is to understand how to structure the problem, what kind of data to gather, and how to analyze it. One reason business computers have not produced better results is that new reports and analyses have almost always been produced—and have had to be produced—by the computer people; executives have not known enough about the computer's potential to phrase their information specifications in any but the most general terms.

Few businessmen have even begun to think about these problems

(Continued on page 79)



THE ORGANIZATION LAMB ...and Other Corporate Creatures

MAN, it has been said, was set apart from all others in the animal kingdom by having been empowered to speak—and fated to work. But even if the blessings of industry and speech had been given to other earthly creatures, things would probably be pretty much the same . . .



"Some day, son, this will all be yours."

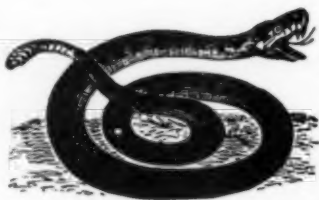
"Okay—so it's not ethical. But it's still damn good business."





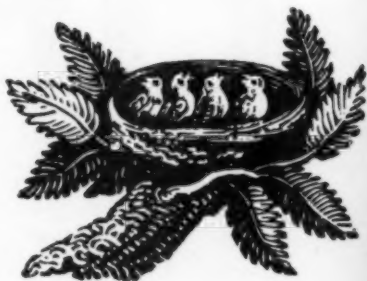
"Of course I know what time it is. Do you think I've been enjoying myself at the office?"

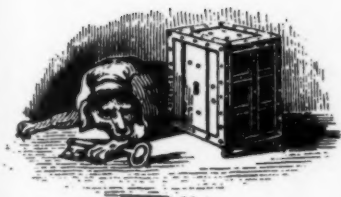
"And we had none of this fancy EDP, or market research, or consultants, either; just me and Old Man Carter ran the whole show."



"Just take care of your own department, Jackson—I'll take care of mine."

"How long does this training program last, anyway?"





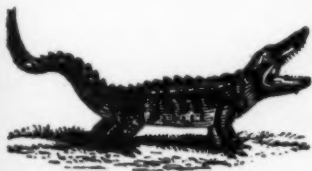
"Sorry, Porter — your department will just have to get along on the amount that was budgeted."



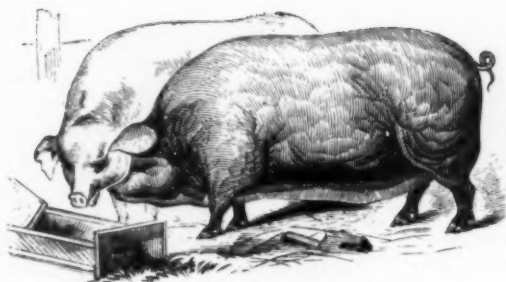
"The other officers and I are always happy to discuss any aspect of the business with our stockholders."



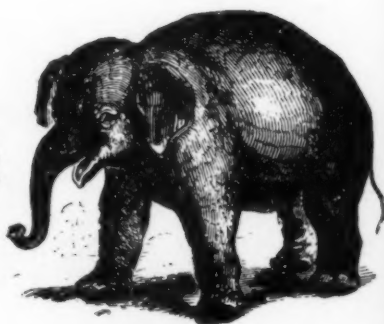
"If I knew what this job would be like, I would've told them to keep it."



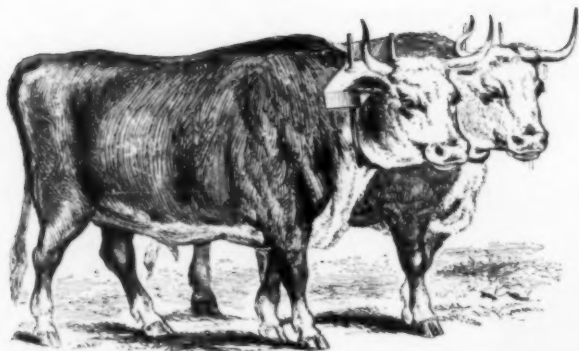
"When I want your advice, Forbush, I'll ask for it."



"Oh, no—it's my turn.
You took care of the
last lunch."



"But J.B.—whatever gave you the
idea I wanted to retire?"



"I don't know about you, but I think they're carrying
this 'management team' business too far." ♦

The CEILING on Selling

By Richard Austin Smith

Condensed from Fortune

JUST WHERE does responsibility for the enfeebled selling of today really lie—with the boss or with his salesmen? Like it or not, a new day is upon us, one in which the shortcomings of management cast a far more ominous shadow than those of the salesmen. In too many companies, management itself has imposed a ceiling on selling through cretinous psychology, myopic price policies, somnolent reaction to the market, and archaic product.

Necessarily, the starting point for any examination of the broader subject must be the actual state of salesmanship today. It is, in a word, lousy. And mainly because of one common thing: lack of effort. The tropical torpor of automobile salesmen is too well known to need discussion here. In retail trade, salespeople have long shown themselves willing to wait on customers and take orders, but the recession does not seem to have spurred them into any great effort at actual selling. This April, the Sales Executives Club of New York asked 484 of its members how long it had been since they were asked to buy anything of consequence. There had been fewer than two salesman con-

tacts apiece, either in person or over the telephone, although as a group the executives were in the market for more than \$3 million worth of goods and services.

But in following the line of least resistance and making salesmen the whipping boys of the recession, management seems to have overlooked its own derelictions and faulty practices. Consider the following limitations that put a ceiling on salesmanship:

The soft-sell vs. reasonable pressure. Every salesman in the industrial field (and those in retail trade who bank on "repeaters") is well aware of the need for building mutual confidence with his customers. Where this basically sound approach comes to grief is in the matter of degree. Specifically, some managements have failed (1) to put an effective curb on the salesmen's natural inclination to sell only where selling is easiest, and (2) to make clear to salesmen that reasonable pressure is quite compatible with the soft-sell technique.

"The trouble with today's selling," said Gillette's Boone Gross, in discussing the new diffidence, "is that we've been riding up the crest for so long, some companies believe it isn't

Fortune (August, 1958), © 1958 by Time, Inc.

quite *nice* to sell hard. They've taken the position, unconsciously or not, that they oughtn't to 'lower' themselves by asking for an order; it's enough to offer an opportunity to buy. The top salespeople in the country pay lip service to selling, but the problem is down the line, at the sales-manager level, and the salesmen themselves. It's a hell of a lot easier for a salesman to wander into a store and just 'visit' than make a real effort to sell something. What we need now is an old-fashioned 'belly-to-belly' job of selling."

The bare shelf vs. the bulging warehouse. The most unfair burden that management has lately been trying to shoulder off on its salesmen is of a kind common to recessions: expecting sales from inadequate stocks. Department-store inventories have been dropping steadily ever since the recession began, have reached the point in some stores where whatever danger there was in getting stuck with immobile merchandise is now outweighed by sales lost because of the poverty of selection. The cure of such situations lies not with salesmanship but in curbing the "Figure Filberts" of the front office. If their control over inventory is to be absolute, then it should be matched by a surer anticipation of customer needs.

More dangerously, Figure Filberts are behind the salesman's other incubus: overproduction. It's one thing for companies to gamble on future markets; that's what capitalism is: the taking of private risks in search of private profit. But it's quite a different proposition for any company that has misjudged its market to expect sheer salesmanship to dissipate

the glut or, more fatuously still, to talk as though the consumer had an obligation to bail him out of his difficulties. Salesmanship alone can bridge only the narrowest of gaps between production and consumption. To prepare the way for effective selling, many industries will have to get in closer touch with their markets.

"Value" vs. price. For the past ten years many manufacturers, and automobile makers in particular, have been operating as if they thought price didn't matter a damn. Many industrialists, though privately admitting that a lot of goods are overpriced for today's market, seem most apprehensive about making any reductions. Even some of the mail-order houses, whose wise catering to price in part accounts for sales stability, are reluctant to abandon the sophistries of "value." "It's not necessary to cut the price of a shirt from \$2.98 to \$1.98, but to give a much better shirt for \$2.98," said an executive recently. But how can the average consumer tell he's getting that extra dollar's worth of value? There was no answer.

A collateral effect of industry's nice-Nellyism about the matter of prices has been to subject the consumer to the hyperbole of the cut-rater. Many consumers today have no conception of what a real bargain is because of the confusion, either deliberate or circumstantial, that surrounds price. "List prices," declared an important appliance manufacturer, "have been kicked around so much, you don't know where they are."

The first step toward restoration of a realistic balance between value and

price will require a concerted effort by manufacturers, both to eliminate price confusions and to cut prices.

Today's successful salesman, as these and other limitations on selling suggest, is a far cry from the brass-tongued, bull-hided, foot-in-door artist of the 1930's. The kind of salesman we need now requires consideration as a whole man, not a robot with a briefcase and a canned sales pitch. The Research Institute of America has discovered, through its 30,000 member salesmen, that salesmen are on a par with the average executive insofar as education is concerned. Salesmen themselves feel their most important problems are not money and security, but a lack of free time at home and the roadblocks to promotion.

One of Du Pont's departmental managers was speaking for many companies when he recently declared: "The salesman in the field doesn't have the opportunity to learn management from the bottom rung up, the way a man does in one of our plants. It's always worried me how to select a good sales manager, especially at the district level. I just don't know whether he's going to be a good district manager or not, for he hasn't had a chance to show it." Yet the industrial salesman in particular, since he stands at the top of his calling, is apt to be well grounded in economics and applied psychology, and to possess a technical degree to boot.

It would, of course, overstate the case for the industrial salesman to suggest that he is a sort of one-man gang. On the contrary, his effectiveness is the result of being a member

of a team. At U.S. Steel, the salesman who sells as large an account as General Motors would have some forty people behind him. Thirty-nine specialists back up each of Du Pont's industrial salesmen. Moreover, at Chestnut Run (near Wilmington), a special Du Pont plant is devoted to checking out a customer's processes for him. Big companies under such circumstances have advantages unavailable to their smaller competitors, but size and selling power don't necessarily go hand in hand. The key point is that real sales power today comes from totality of effort. The first step in achieving totality is a better understanding of the consumer. By and large, consumers today are sick of having high cost designed into a product instead of designed out of it, are tired of the tympanic type of advertising, confused by variety run amuck, angry at the complicated gadgetry that binds them to irresponsible repairmen, and suspicious that each new "innovation" is just propaganda for pseudo obsolescence. The old policy of keeping the customer reasonably dissatisfied with what he's got, once enunciated by G.M.'s Charlie Kettering, is in particular need of realistic reappraisal, for consumers are dissatisfied not only with a good bit of what they have but with much of what is offered to replace it.

Sales power means backing up the salesman with design, engineering, production, marketing, all focused on the central consideration: what makes for sales? When everyone from the president on down is thinking about the customer, the merchandise moves. ♦

REORGANIZING

WITHOUT REGRET:

A Six-Step Program

By Louis A. Allen

Condensed from Dun's Review and Modern Industry



IN the fertile economic climate of the postwar years, sales boomed, production requirements multiplied, and profits flourished as never before. Inevitably, the majority of companies found themselves grafting new functions on to the organization, and existing departments sprouted out in all directions with little direction or guidance.

Now, with the slackening in market demand, many of these companies are faced with the need to prune some of this exuberant organizational growth. Unfortunately, the pruning is often haphazardly done. One Pennsylvania company, for example, recently instituted a 15 per cent across-the-board slash in manpower. It was quickly apparent that the cut had dangerously weakened efficient departments operating with few surplus personnel and had whittled only a little fat from overstaffed or marginal departments.

If your company is considering organizational changes, whether general or only for individual departments, here is a rundown of six important steps to a successful and painless reorganization.

1. *Develop objectives.* When a company is contemplating organizational changes, it should first analyze its objectives and operating programs.

For example, several years ago, Lukens Steel Co. identified a number of weaknesses in its marketing and manufacturing operations. Rather than plunge into immediate reorganization, the company made a careful study of its objectives and over-all programs. It found that its sales tended to fluctuate with the variations in the capital goods market, and that its geographic location, lack of integration, and insufficient diversification of product line were competitive disadvantages.

Following through on these find-

Dun's Review and Modern Industry (June, 1958). © 1958 by Dun & Bradstreet Publications Corporation.

ings, President Charles L. Huston, Jr., set a long-term objective of increased marketing effort in those segments of the capital goods industry that could utilize the company's products on a more stable basis and offer the greatest growth potential on a continuing basis. A second, closely related objective was improvement in product mix by increased concentration on products that Lukens could produce with the maximum return on invested capital and for market areas that the company could serve best.

Lukens accomplished these objectives by strengthening the organization and improving the techniques of the commercial research, technical service, and marketing service departments. The company's sharp improvement in sales, profits, and market position attests to the success of the plans.

2. *Survey the organization.* In a careful and detailed inventory of the strengths and weaknesses of the existing organization, you should first pin down the facts: What work is being performed, and by whom? What authority is being exercised? What relationships exist?

To find out, maximum participation of the people who do the work is essential, for they are the ones who know. Each manager who participates in the survey should be asked to draw an organization chart showing his own job and its relationship to other positions. He should also answer a written questionnaire, designed to help him think through what he does, why his job is necessary, and what authority he has to make decisions.

After these data are gathered and

correlated as position guides, the differences should be reconciled. Often there is a discrepancy of as much as 40 per cent between what an employee thinks his job and authority are and what his boss thinks they are.

This analysis will show whether those who have responsibility have commensurate authority, whether overlap and duplication exist, and whether the work is properly grouped to meet the company's objectives.

3. *Prepare a master plan.* The benefits of a proper organization change should be long-range and cumulative. Each move should be a step in a predetermined pattern, part of a master plan.

Developed to enable the company to achieve its economic and social objectives, such a master organization plan is prepared by top management starting, literally, with a clean sheet of paper. It is not predicated on personnel now available, but on persons who can be made available by selection and development of present personnel and recruitment of new. To avoid distorting the plan with existing weaknesses and deficiencies, it should not use the present organization structure as a starting point.

4. *Prepare phase plans.* With a survey of the existing organization and a master plan, management is now ready to plot a series of moves that will take the company from where it is to where it wants to be—three or five years from now. This is the process known as phase planning.

Phase plans are interim organization steps, designed to accomplish specified short-term goals and yet keep the company moving consistently

toward completion of the master plan.

Carrier Corp. provides an excellent example of phase planning. Carrier operated with a centralized, functional type of structure until World War II. After the war, sales skyrocketed and the company began to make plans to improve its position by, among other things, expanding into related fields. A master plan of organization was developed that called for the ultimate creation of a fully divisionalized, highly decentralized organization structure.

Obviously this reorganization could not be accomplished at one fell swoop. Proceeding carefully, Carrier developed several phase plans. First an Allied Products Division was organized in 1950 to test the new concept. The engineering, manufacture, and sale of two product lines were turned over to the new division, and it was held accountable for profit and loss. Learning from this move, Carrier later carried out additional phase steps, involving creation of the Machinery and Systems Division and the Unitary Equipment Division and establishment of a corporate staff. Then Carrier phased into this structure several companies that had been acquired to strengthen the company's position in residential air-conditioning and the industrial machinery market.

A special advantage of phase planning is that it can make maximum use of the skills and abilities within the company and provide opportunities for progression and advancement to employees with potential. Reorganization should not result in loss of position or pay for those affected and should be closely geared to normal

personnel changes. Hence the opportune time to make a major organization change is when key personnel are to be promoted, transferred, or retired. If personnel problems are anticipated, they can usually be worked out within the master plan.

As a case in point, one small but rapidly growing manufacturing company undertook a first move toward divisionalization and decentralization. In the process, it found that the heads of the functional engineering and production departments were too highly specialized to be entrusted with the general management of the new divisions. But a phase plan provided for two consultants, reporting to the chief operating officer of the company. Both men held these positions until they retired. Both made valuable contributions to the company because of the special skills and experience they possessed and their many outside contacts. After they retired, their positions were abolished, without disturbing the organization.

5. Overcome resistance to change. The most troublesome aspect of a reorganization program is likely to be getting people to accept it. Each rumor of change is instantly interpreted as a threat to the status and position of those who are affected, whether directly or indirectly. The inevitable result is a deep and positive resistance, either outspoken or hidden. There are four ways to overcome this resistance:

- *Go slow.* A successful reorganization is paced by the ability of the employees involved to understand and accept their new roles and relationships. Changes should proceed gradually. Several years are often required

to effect a major changeover. In the case of a reorganization of basic marketing or production patterns, a succession of changes, stretching over many years, may be needed.

- *Provide for participation.* People will accept changes more readily when they understand why the changes are needed. This understanding can best be achieved by giving employees an opportunity to participate in decisions that affect them.

- *Communicate.* A corollary to the need for participation, in itself a means of communication, is the need to tell all concerned about changes that are being planned and give them an opportunity to ask questions, make recommendations, and, in general, know what is going on. And "all concerned" is not limited to those within the company, but should also include shareholders, dealers, and the public at large.

- *Educate.* More than half the problem of creating favorable attitudes toward reorganization can be solved by educating people for their new work and relationships and developing skills for most effective performance. Most companies rely on classes, courses, and on-the-job instruction. Humble Oil & Refining

Company devotes sessions to study of the general principles of organization and how they apply to the job situation. Armstrong Cork Company holds conferences on organization for new supervisors and other members of management.

- 6. *Staffing the organization.* Just as management planning must precede effective reorganization, staffing must accompany it. As the organization plan is developed, steps must be taken to appraise and inventory the management talent now available, identify individuals with advancement potential, and provide opportunities for training and development so that the right people will be ready when the key openings occur. A company should not have to go outside for a large proportion of the people to fill new jobs. With foresight and planning, a reorganization can spur the personnel involved to greater productive efforts.

Smooth and painless reorganization is not easy, but if you find that faults in your organizational structure are showing up under the strain of today's tougher competition, a well-planned, long-term overhaul can be an effective way to strengthen your future profits. ♦

BECAUSE ACCURATE, COMPLETE INFORMATION is essential to efficient plant operation, E. I. du Pont de Nemours & Company has found it pays to equip their engineers with portable dictating equipment. This enables men in the field—such as materials handling engineers—to get their observations on tape while they're still hot. And when engineers talk their observations instead of writing them, they tend to include a larger amount of useful detail. The recorders used weigh no more than a camera, are battery-powered, and hold enough magnetic tape for an hour's use.

—Factory Management and Maintenance 4/58

Uppermost in the minds of most company treasurers these days is this pressing problem . . .

Making Cash Work Overtime

Condensed from Business Week

RELATIVELY minor when money was plentiful and cheap, the role of the company treasurer has become a vital one now that corporate profit margins are shrinking and companies are hard pressed for cash. A smart treasurer can do much to save a company from having to depend on bank loans and securities markets when it needs funds.

Partly through choice, and partly through force of circumstance, companies today have had to learn how to get along with less and less cash. Since 1947, corporate sales have about doubled, but corporate cash and security holdings have increased only 31 per cent. Result: The ratio of cash assets to current liabilities is approximately 41 per cent—just about the 1939 level.

For the treasurer, the key question is: How much to keep in the bank? The answer, generally, falls in two parts: enough (1) to keep the company's checks from bouncing, and (2) to compensate the bank for its many services. The treasurer's goal is to cut down on idle cash, but he must also keep his bankers happy.

Many top companies make regular analyses of their banks. General Electric Co., for one, makes annual

appraisals of its 540 domestic and foreign banks—and Treasurer John D. Lockton says, "We have almost no idle bank accounts." GE's sales are 77 times its cash, an exceedingly good ratio.

Treasurers cut down on idle cash in a number of ways. The most important is cash flow forecasting. Some companies match up day-to-day inflow and outgo of cash so precisely that they can keep bank deposits almost constant through the year. American Telephone & Telegraph Co.'s average of cash and demand deposits through 1958 has varied barely \$500,000 either way from \$13 million.

Companies expect customers to pay bills quickly, and, as customers themselves, try to make their own payments quickly. The faster the treasurer can collect customers' checks and get them to his bank, the quicker he can put the money to good use. By paying his own bills quickly, he often gets a discount. Though this discount—say 2 per cent for payment within 10 days—seems small, treasurers figure it's the equivalent of a 36 per cent annual return on investment.

Nevertheless, the smart treasurer

Business Week (July 12, 1958), ©1958 by McGraw-Hill Publishing Co., Inc.

will pay at the last possible moment, to keep his cash working longer. If a company pays 1,000 invoices, each for \$1,000, a day in advance, its working capital would be depleted by the equivalent of \$1 million for one day. Invested at 3 per cent, this would have earned \$83 for the day.

The same applies to distribution of working funds to company departments. Some Gulf Oil Corp. divisional field offices, for instance, used to requisition funds once or twice a week; now the treasurer's office insists on daily requisitions, thus keeping some cash on tap as much as four days longer. John Shaw, assistant treasurer, told an American Management Association seminar last year that, on the basis of ten offices each requiring \$500,000 a week, these staggered requisitions free the equivalent of \$10 million for one day each week. At 3 per cent interest, this earns better than \$42,000 a year.

A few companies time disbursements to the day by paying bills by time drafts. These direct a bank to make payment on a fixed date, instead of on demand as with a check.

Canada Dry Corp. uses this method extensively. When it instituted the system several years ago, the company eliminated all its checking accounts outside New York, and now pays by draft on a New York bank. Although this eliminated check payment activity in local banks, Vice President P. H. Littlefield says Canada Dry continued deposit accounts in these banks, so they "are making more money than ever before on our accounts."

One advantage of paying by draft is that it cuts down sharply on "float,"

the time during which checks are in transit. Once a company makes out a check, it may have to keep perfectly good funds sitting idle in the bank for days until the check comes back to its bank.

Cutting down on float, both in payments to and by the company, is one of the treasurer's major preoccupations these days. One big aid was the installation several years ago of teletype wires between major banks around the country, which enabled funds to be transferred almost instantly. For example, a deposit in a company's account in the Bank of America in San Francisco can be credited to its account in its New York bank the same day—and the treasurer informed what "good funds" he has available that day.

This wire system has made possible a method of cutting float called "area concentration." Accounts are established in banks in various areas, so a customer's remittance in one area should reach the collection place in that area in one day. Area banks report by wire to the company's central bank, which keeps the treasurer informed. The treasurer may drain off excess balances in any area either by automatic transfer of all funds over a certain amount, or by his special order when he wishes a specific transfer made.

General Telephone Corp. has tackled the float problem by instituting what it calls Automatic Cash Transfer; its companies in Michigan and Kentucky already have the system installed. Treasurer Ralph D. Heusel explains that the Michigan company uses 160 local banks, which used to handle all cash and checks.

Now local General Telephone offices mail out-of-town checks to a central bank; the offices deposit cash and local checks locally, but mail a check for the amount of each day's deposit to the central banks.

This, says Heusel, saves about \$2,000 a year in service charges on local collection of out-of-town checks, cuts clerical work in the treasurer's office, and has brought average local balances down from \$740,000 to \$140,000. The local banks are not unhappy because the remaining balances are more constant, Heusel says.

Here are some other techniques companies are using to cut down on float:

The "lock box" system, under which customers mail payments to a post office box near one of a company's main banks. The bank picks up the checks, sometimes even through the night, and credits the company's account the next morning.

The "guaranteed overdraft," usually used by companies with temporary operations, such as construction concerns. The man in charge of such an operation arranges to have a local bank honor checks over his signature, for a fee; these checks are guaranteed by the company's own bank and by the company, and no deposit is required by the local bank. AT&T uses a "Field Draft Plan"—though not often for payrolls—with a limit of \$100 or \$200 on drafts a foreman can draw.

Not all of these methods for making cash work overtime, of course, are suited to the needs of every company. And taken separately, the savings from use of any one device may seem small considering the overall magnitude of a big company's treasury. But when a number of them are used together, treasurers find, these cash-conserving devices pay their own way, and more. ♦

Who Needs Money?

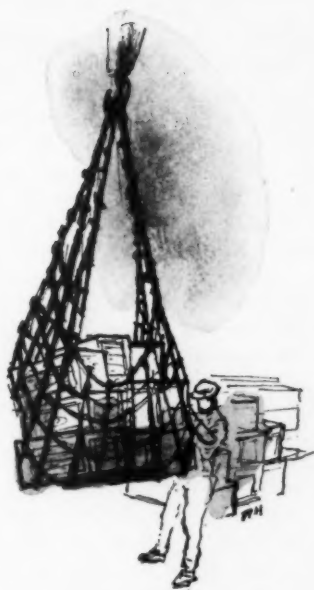
EVERYONE KNOWS that money won't buy happiness, but in 50 years or so it may not buy anything. That's the prediction of Designers for Industry, a Cleveland company specializing in data-processing equipment and electronic systems. The firm's electronic engineers have dreamed up a system that completely eliminates the need for cash, coin, or checks.

Here's how the system works: Everyone will have his own "electronic pocketbook" for bank deposits and withdrawals, charge payments, and "cash" buying. About the size of a standard identification card, it will have a complete printed circuit to meter the amount of dollars being withdrawn or deposited. Wages will be "posted" on the employee's electronic pocketbook by a posting machine that will be wired to a central bank, where a withdrawal will automatically be made from the company's account and added to the employee's. This sequence will be reversed when a purchase is made; each store will have special electronic equipment that will post a withdrawal on the electronic pocketbook and transmit the data to the central bank so that the money can be deducted from the purchaser's account and credited to the store's.

—Warren C. Stevens in *Modern Office Procedures* 7/58

New Techniques in Industrial Packaging

By Phil Hirsch
Condensed from *Commerce*



CORRUGATED CONTAINERS that expand and contract to fit products of different sizes and flexible rubber and plastic containers that can be collapsed after emptying are but two of a growing number of new industrial packaging innovations that are helping alert companies cut their shipping, packing, and storage costs these days. And it's about time, say leading industrial packaging engineers. They contend that despite the use of conveyors, lift trucks, automatic pallet-loaders and other labor-saving devices, many firms are still paying too much to move work-in-process through the plant and to pack, store, and ship the finished product.

Among the companies finding new ways to cut costs and increase efficiency in this area is G. Felsenthal & Sons, Inc., a Chicago plastics manufacturer. Production manager Richard Brown reports that Felsenthal has reduced packing costs "several thousand dollars a year by developing

an ingenious corrugated shipping container that doubles as a tote box capable of moving work in process down the production line."

Felsenthal is a major manufacturer of plastic components for automotive and aircraft dashboard instruments, including the transparent "windows" and the calibrated panels. Formerly, after these disks and panels were molded, they would be laid out, cookie-fashion, on a corrugated sheet and moved through polishing, painting, and other finishing operations. Then, at the end of the line, the components were wrapped in tissue paper and loaded into a shipping container.

Now, the firm uses the corrugated tote box, which has vertical dividers inside made of the same material. After being molded, from 25 to 250

Commerce (June, 1958), © 1958 by Chicago Association of
Commerce and Industry.

plastic windows or panels are inserted in slots in the corrugated dividers. At each step in the finishing sequence, the components are processed individually, as before, and then are put back in the box. At the end of the line, four to eight boxes are placed in a corrugated carton which, after being sealed, is ready for shipment.

Switching from the spacer sheet to the tote box has cut packing time at the end of the production line in half, reports production manager Brown, and the number of parts rejected because of scratch marks has been reduced 20 to 25 per cent. Loading the items as they come out of the molding machine is now accomplished in 10 to 20 per cent less time. Over-all, there has been an increase of between 20 per cent and 30 per cent in output. The new dual-purpose tote box has also made Felsenthal's customers happier, because the increased accessibility of the components speeds up their incoming inspection and assembly operations.

Another technique for cutting the time and cost of packing small parts, developed by Chicago's Hinde and Dauch Paper Co., makes use of a corrugated sheet coated on one side with a pressure-sensitive adhesive. After a sheet is laid horizontally inside a shipping container, the parts are anchored to the adhesive surface, which prevents them from moving around in transit. Small electrical coils are among the products that have already been shipped in this fashion. By eliminating the complicated inner packing usually required to keep such small parts in place, the

adhesive sheet produces a substantial saving to the shipper.

One of the chronic headaches in many shipping rooms is created by the product which comes off the production line in a number of different sizes, or by a line of related products, each varying in length, height, and/or width.

One answer to this bottleneck is Adjusta-Pak, an ingenious method of packaging offered by Chicago's Signode Steel Strapping Co. Basically, an Adjusta-Pak consists of eight scored and slitted corrugated sheets, which are formed into a box. The unusual feature of this packaging technique is that the length, width, and height of the container can be varied within wide limits to fit the dimensions of the product. The sheets are offered in three basic sizes; just one of these sizes will form a container as small as 18 x 18 x 12 inches or as large as 30 x 30 x 12 inches.

Adjusta-Paks are being used to ship everything from Sunday school lessons to men's toiletries, airplane engine parts to knit cotton underwear. One firm, the National Vulcanized Fibre Co., of Yorklyn, Delaware, previously had to stockpile 150 different sizes of wooden shipping crates. Now it uses three sizes of Adjusta-Pak sheets, and reports it has saved \$16,000 a year in shipping materials alone, not to mention additional savings from a reduction in the amount of space required for storage of empty containers.

Flexible rubber and plastic containers designed to handle a wide variety of liquid and granular products have also helped companies reduce

their materials handling costs. One example is U.S. Rubber's Sealdtank, which resembles a gigantic toothpaste tube. It's made of four plies of rubber-coated rayon tire fabric, faced on the outside with neoprene, and comes in various sizes with capacities of from 3,800 to 20,000 gallons. Main advantage of the container is

that it permits truckers and railroads to move liquid or granular products in equipment designed for solid freight. Several companies are using Sealdtanks for permanent storage as well as for movement of bulk commodities, and the cost is reportedly much lower than that for permanent storage facilities. ♦

"I Don't Want to Retire ..."

RETIRING one 65-year-old employee who wants to continue working and retaining another worker of the same age can be one of the most unpleasant tasks management has to handle. Yet company efficiency often requires that a flexible retirement system be used.

One company recently faced with the necessity of setting up such a system has found that the best and fairest way to go about it is to establish the important factors affecting retirement and to judge each worker in those terms only. According to the company, Consolidated Edison Co. (New York), this objective approach avoids placing the foreman in a situation where he has to make an intuitive decision based on his feelings of the moment.

The Consolidated Edison program uses three main criteria in deciding who should be retired and who should not:

1. The employee's rating and his absence and accident rates over the preceding five-year period.
2. Any restrictions placed upon the employee's ability to work because of physical condition.
3. The necessity of replacing him, and the effect of his retention upon the normal promotional opportunities of other employees.

Six months before his 65th birthday, an employee is asked if he wants to go on working after his normal retirement age. Unless his answer is so definitely and plainly "no" that management can have no doubt about a possible change of mind, a clerk fills out a simple one-page form with the facts that management needs in order to make a decision. Even when the answer is no, management may sometimes go ahead with the process. The personnel department has learned that even the firmest, "I don't want to work any more," can change to "Maybe I ought to stick around for another year," as retirement time nears.

After the form is filled out—with the employee's foreman completing anything the clerk can't—a conference is arranged at which department heads and the foremen are present. A quick appraisal of the facts on the form is usually enough to convince everyone that a man either must be pensioned off for the sake of efficiency and morale, or can remain on the job until the mandatory retirement age of 68.

—Employee Relations Bulletin 6/11/58

PRODUCT LIABILITY INSURANCE

—a growing necessity?

By John J. Savage

Condensed from *Management Methods*

RECENTLY, the dress of a woman sitting in a cocktail lounge accidentally caught fire and enveloped her in flame. In the court action that followed, the manufacturer of the dress was held liable for selling it without specific warning that it was inflammable.

In another recent accident, a man was injured when a porch railing collapsed. The contractor who had built the porch 20 years before was held liable for defective construction.

These two cases reflect a significant trend: business firms are being held increasingly liable for damages resulting from the use of their products and services. At both the federal and state levels, new statutes have been created to protect the public. Without regard to fault in many cases, the courts have managed to find reason to reimburse injured customers.

Two legal remedies are available to a person claiming to have been damaged through the use of goods or services. The first is in *tort*; the second is in *contract*. Choice of the legal action depends on the court jurisdiction and also on which of the two remedies offers the better chance of recovery.

A tort, as distinguished from a crime, may be defined as a private or civil wrong to a person or his property. To recover damages, the plaintiff must establish negligence.

In many cases, however, the degree of negligence required is not necessarily substantial. There are federal and state laws applying to certain products which go far beyond the normal concepts of negligence.

An example of a tort action is the case of a store that was held liable for selling a stove polish negligently described as safe for hot stoves. The daughter of a purchaser used the product on a hot stove and it exploded.

In this same case, damages could have been claimed through a breach of contract action. This type of legal remedy rests upon a breach of warranty by the vendor as to the character, quality, or substance of his products or services. An *express warranty* is created by explicit statement by the vendor; an *implied warranty* is one raised by law as to the fitness of the product for the intended purpose.

Thus, when a customer purchased a loaf of bread containing a pin which caused injury, the defendant grocer was held liable because of breach of warranty as to the fitness of the bread.

In another case, a building materials dealer was held responsible for damage that resulted because the building materials he sold were not equal in quality to the sample which was the basis of the sale.

One solution for the company that

Management Methods (June, 1958), © 1958 by Management Magazines, Inc.

wants to protect itself from the possibility of having to pay substantial damages is product liability insurance. Such insurance covers legal liability for bodily injury and property damage sustained by the public because of accident arising from the company's goods, products, operations, or services. The company gets this protection on goods or products manufactured, sold, handled or distributed by it, or by others trading under its company name. However, it gets this protection only when the accident occurs away from its own premises and after it has relinquished the product into the possession of another.

Product liability insurance also covers the company's operations, usually including contracting services, if the accident occurs away from its premises after the operations are completed or abandoned.

A key exclusion of product liability insurance is that it does not cover damage to the product itself, or the completed work out of which the damaging accident arises. For example, assume that a boiler manufacturer is held legally liable because a defective boiler explodes, causing damage to surrounding property. Product liability does not cover replacement of the boiler, which is a business risk, but does cover damage to the surrounding property.

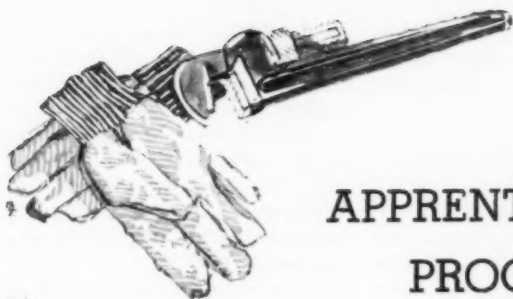
There are also limitations in the

amount of protection. For bodily injury, the basic limits are \$5,000 for each person receiving bodily injury as the result of one accident. Subject to the per person limit, there is usually a total limit of \$10,000 for injuries received by two or more persons as a result of one accident. This is further subject to a so-called aggregate limit of \$25,000, which represents the total bodily injury amount payable during an annual policy period.

For property damage, the basic limit is \$5,000 damages for injury to or destruction of property as a result of any one accident. This is further subject to an aggregate limit of \$25,000 for all damages payable during an annual policy period. Additional limits of protection, usually purchased in multiple amounts, cost relatively little additional premium.

Premiums are usually figured on the basis of each \$1,000 of sales for tangible products, and each \$1,000 of receipts for services. Obviously, not all products and services entail the same hazard. For this reason, there are many classifications for different products or service operations. The manufacturer of cosmetics, for example, pays a higher premium rate than the corner grocer. The actual premiums paid by different classes of business are developed on the loss experience for each classification. ♦

WHEN IS A WOMAN "TOO OLD" to be hired as an office worker? Companies are giving an increasingly lower age in answer to that question, judging from a recent survey conducted by the Office Executives Association. Of 148 New York City companies surveyed, 13.5 per cent said their maximum age is 40 or below; last year, a similar OEA report showed that only 7.6 per cent put 40 as the cut-off age.



APPRENTICE PROGRAMS:

Can They Ease the Skilled-Worker Shortage?

Condensed from Steel

APPRENTICE graduates are the backbone of our manufacturing team."

"Apprentice training is the salvation of our industry."

Despite the frequency with which such statements are made by leading business executives, they are in unhappy contrast to the actual implementation of apprentice training programs throughout industry. The need for these programs has become so serious that the Labor Department's Bureau of Apprenticeship and Training is putting extensive efforts into the promotion of more and better programs. These efforts include:

1. Studying needs for skilled workers and the extent to which management, labor, and government are meeting them.
2. Publicizing outstanding programs and encouraging public interest in training problems.
3. Helping management, labor, and state and community agencies to es-

tablish apprentice training programs.

4. Developing technical aids to increase the effectiveness of programs.

Points out A. G. Beaubien, chief of the bureau's review branch: "There has been a lot of talk about training engineers, but we haven't yet touched (on a national basis) the work area just below the engineers." And with the current trend toward handing some of the engineer's work over to the technician, the need for good technicians has grown.

Unfortunately, apprentice programs still get more than their share of black eyes. Some of the common charges are: Training programs take productive time from the skilled workers who teach the recruits; trainees may leave the program or flunk out; they may be called into service; they may leave your company for another firm.

While admitting that firms sacrifice some time and money on their

Steel (July 7, 1958), © 1958 by the Penton Publishing Company.

apprentices, defenders of apprentice programs claim: (1) It takes less time than most people think for an apprentice to become productive; (2) the apprentice will stay with you if you pay him a "reasonable" wage as a journeyman; and (3) an apprentice eligible for the draft needn't be absent for more than six months if he enters the active reserves.

Some companies lose too many trainees, thinks one executive, because their preliminary screening of candidates isn't thorough enough. He believes that the apprentice should have the equivalent of a high school education, should be given an aptitude test, and should serve a probationary period before formally entering the program.

Reports from a cross-section of large companies indicate that most apprentices stay with the company after their training. Aluminum Co. of America says that only 5 per cent of its trainees leave voluntarily and that 3 per cent flunk out. Over 15 per cent eventually become supervisors or executives. International Harvester Co.'s tractor works has lost one apprentice and fired one in the past eight years. Continental Can Co. made a survey showing that only 25 per cent of its apprentices did not complete the program or left within five years after completion. General Electric reports it has lost about 20 per cent of its trainees at its Erie, Penna., plant since 1945—most were drafted and went on to college. Says one GE executive: "The turnover of apprentice graduates is considerably more favorable than that of normal employees."

The two essential factors in any

sound apprentice program, says Bertram Rigg, training supervisor for Armco Steel Corp.'s Ashland (Ky.) works, are classroom instruction and on-the-job training. About 10 per cent of the trainee's time at Ashland is devoted to classroom instruction. Textbooks, demonstrations, lectures, laboratory periods, and visual aids are used.

Job rotation is a basic feature of the Ashland program. Hours are allotted for each job within the trade the apprentice is learning. Foremen handle on-the-job supervision, while an apprentice coordinator takes care of classroom instruction. Bimonthly reports are made by foremen on the apprentice's safety habits, ability to learn, willingness to work, accuracy, productivity, and personal habits. Management insists that foremen make additional comments in the "remarks" section of the report.

Union cooperation is highly important to the success of any apprentice program, according to the Labor Department's Mr. Beaubien. As an example, he points to the success of joint apprentice committees in the construction industry. "It is the liaison group that makes the program work," he maintains.

Management prerogatives are not lost with such committees, he believes, and they can be very useful in solving misunderstandings. For 20 years, a committee at Ford Motor Co. has been helping to administer its apprentice program under the UAW contract. The common interest of both parties has been served, says Mr. Beaubien, because: "Unions have skills to sell; management wants those skills." ♦

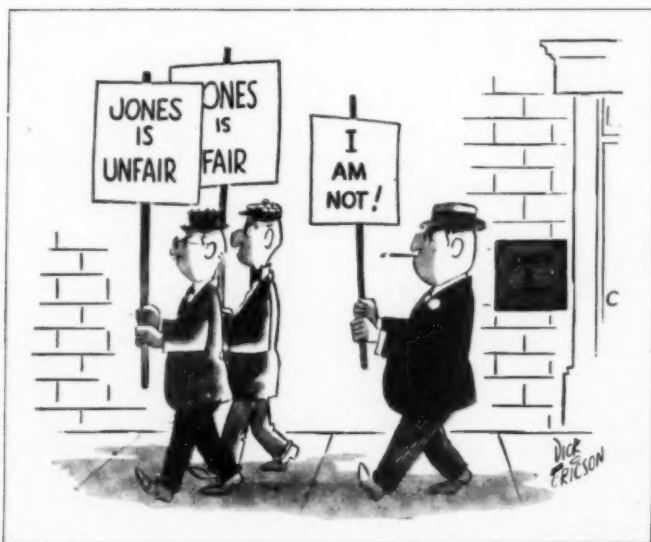
Pension Funds—the Assets Keep Climbing

CORPORATE PENSION FUNDS are flourishing more lustily all the time. The Institute of Life Insurance reports that last year the reserves of funds handled by insurance companies jumped 13 per cent to a record \$14 billion. And the more numerous funds that are not handled by insurance companies grew even faster; they went up 16 per cent to a record \$19.3 billion, according to the annual pension survey of the Securities and Exchange Commission. That total is 2.8 times the asset value in 1951, when the SEC began keeping score.

Over the years, manufacturing companies have accounted for the greatest growth, and 1957 was no exception. The assets of funds set up by manufacturers climbed \$1.8 billion during the year, to a record \$12.2 billion. Funds established by all other segments of business went up only \$850 million during the year, to a total of \$7.1 billion.

Of the total fund receipts last year, 70 per cent (\$2.3 billion) came from employers, while employees chipped in only 9 per cent (\$316 million). About 1 per cent came from scattered sources, and interest and dividends accounted for a substantial 20 per cent. This investment income has been growing in importance, thanks largely to the greater importance of common stocks as fund holdings: now \$667 million, it was only \$500 million in 1956 and \$200 million in 1951.

—Business Week 6/21/58



—Reprinted by special permission of The Saturday Evening Post.
Copyright 1958 by the Curtis Publishing Co.

Color can be a vital factor in consumer buying decisions. Here's what some companies are doing to learn the public's color preferences . . .

Calling Consumers to the Colors

By Faber Birren

Condensed from Sales Management

IN MANY consumer products color is an important factor to buyers, and in some it is the *primary* factor. Yet, of all the elements that go into the consumer's choice of a product, color preference is probably the most elusive for market researchers to pin down. Judgment of color is likely to be emotional and inconsistent, and color research will only be effective if certain principles are followed:

1. *In certain conditions, it is unnecessary and misleading to determine consumer color preference.*

It is possible to overthink on the matter of color. Some years ago a Chicago food packer put great care and effort into designs for a wrap-around label for a jar of peanut butter. The designs and color schemes were shown to consumers in retail outlets, and first choice went to an appetizing combination of brown, orange and green. Yet a simple label comprising a dark blue panel with large red squares in the background, devised strictly on a hunch, outsold the consumer-tested package by four to one.

Why? Because the human eye will be attracted to certain stimuli, regardless of feeling or reason. Bright

colors of high visibility—such as red and orange—will startle the eye. Thus, when attention-value is the first consideration, the merchandiser or designer will do far better to study the technical aspects of vision than to sound out the notions of his customers.

2. *Color research cannot be treated as an abstract or academic problem.*

One of the chief difficulties of researching color lies in the complexity of the medium itself. Even conservatively speaking, at least 10,000 different hues, tints, and tones are readily distinguishable to the human eye. Since the selection must be limited, much care must be used in choosing the particular colors for a consumer preference test. Otherwise, the test results may be dangerously misleading. For example, in one of the best-known products in America, a specific shade of green has been found to rank sixth (less than 10 per cent) out of eight hues. Yet green has been the top American favorite for years. Investigation in this instance has revealed the fact that the shades of green used in the original survey were all poor ones, haphazardly chosen.

Sales Management (June 6, 1958), © 1958 by Sales Management, Inc.

Any test or poll of color must, itself be based on a researched selection. A spectral order would be academic and futile. Working up a well balanced selection that will sound out all taste—light colors, dark ones, modern ones, conservative ones—requires access to historical records, reference to market studies, study of sales tests, and other research. Otherwise the researcher may come up with a wrong answer because he asked wrong or inadequate questions.

3. *Consumer color preferences vary with changing conditions and the passage of time.*

Many consumer polls on color have been ineffective because human emotions are unreliable and inconsistent. For example, when Schick introduced four colors in its electric shaver, 250 shavers were offered as free gifts to a group of businessmen. Their color preferences were: red, 42 per cent; beige, 24 per cent; green, 23 per cent; white, 11 per cent. Yet when the shaver went on the market, the actual sales figures of several thousand units had this order: white, 36 per cent; beige, 25 per cent; green, 21 per cent; red, 18 per cent.

While red had been top choice when the situation offered the emotional pleasure of getting something for nothing, it was at the bottom when the buyer had to think things over and pay out of his own pocket.

Time can also affect color preferences. In 1954, when colored home appliances were about to be put on the market, a careful study of general color trends revealed great potentiality for pink. One dubious management, doubtful that any of its customers would want a pink re-

frigerator, conducted a consumer poll to find out. Almost none of the respondents expressed a preference for pink. Yet, when pink finally went to market, it accounted for over 40 per cent of one appliance maker's color sales in the first year.

The explanation lies in the fact that color trends are always changing. At the time the color survey was made, the trend toward pink had just started and most consumers were still unaware of it. By the time the appliances were put on the market, pink had worked its way to the top in consumer preference.

In cases such as this, it is more important to direct research toward color trends in general than toward the immediate preferences of individual consumers.

4. *Effective color styling may require different approaches for different types of buyers of the product.*

Often, a manufacturer will present a harmonious and related range of hues, in the erroneous assumption that these will please all tastes. This emphasis on harmony may result in the product missing a fat part of the market.

In choosing colors for its new portable typewriter, Royal made a preliminary study of different types of buyers. For example, lawyers would buy a portable typewriter primarily for utility and would reject anything but conservative styling. A housewife might want the machine to fit in with the decor of her home. And for college and high school students, typewriter styling must have a lively and striking quality.

Accordingly, Royal used three different sets of colors: a gray and a

soft green for conservatives, a beige and an oyster white to capitalize on the two most wanted colors in home furnishings, and a turquoise and vermilion red for the gift and teen-age market.

While the six colors didn't have a neat, academic relationship, they covered the entire potential typewriter market.

5. *The controlled sales test is the most accurate method of establishing*

the color preferences of consumers.

In a retail sales test, the product can be offered in a few carefully chosen outlets. The color preferences shown in the test can then guide the final choice of colors for full production. The advantage of this type of color research is that the consumer actually buys the product, whereas in a survey he only expresses a preference that may not operate in an actual purchasing situation. ♦

Showrooms Take to the Road

A NUMBER of alert manufacturers have discovered that traveling showrooms are an effective method of sales education and dealer training. A well-known tire manufacturer, for example, has four 35-foot trailers carrying the story of its products. The trailers feature motion picture and slide shows, pictorial displays, and sample products. The company finds that this technique enables it to train ten times as many retailers as it could before, and at a considerable saving.

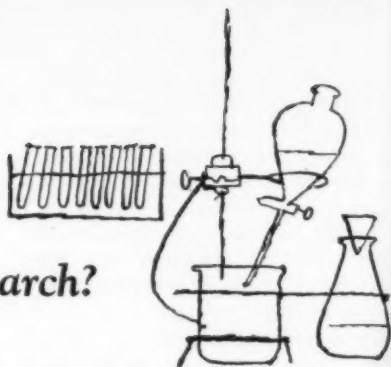
Another manufacturer is acting on the belief that by teaching dealers' employees to maintain and service its tractors, it can improve its own profits picture. Regular working models of tractors are hauled to the dealers in mobile training units, and complete lessons are given.

Other jobs tackled by the manufacturers' four-wheeled representatives include demonstrating products to other manufacturers right at their plants; showing customers the product in actual use; and displaying complete new lines to distributors from coast to coast simultaneously. One light-fixture manufacturer has four tractor-trailer units which serve as showrooms for local distributors. The distributors arrange for a turnout of dealers, contractors, and architects.

The mobile units serve an advertising function, too; in many cases the arrival of a trailer brings interested phone calls to the manufacturer's local office. Salesmen find the device a high-powered aid for boosting sales. The trailer of a paper mill, for example, carries a company executive as well as the sales aids and product samples. When it calls on plants that are potential customers for paper towels and industrial wipers, the distributor's salesman has plenty of effective backing, and purchasing decisions are usually made on the spot.

—The Biddle Survey 5/20/58

Should Industry Do More Basic Research?



By Albert E. Hickey, Jr.

Condensed from Harvard Business Review

MOST of our recent attention to the problem of scientific resources has been directed at financial support and at the training of scientists. Equally important, but almost totally neglected, is the problem of where the basic research will be conducted. Where will the increased number of graduate scientists work? Should a larger share of the national basic research program be done by industry?

Industry, motivated by goals of immediate profit, presently sponsors almost exclusively noncreative research. As matters now stand, the needed expansion in creative science will have to be provided almost entirely by the colleges and universities. Although industry makes heavy use of scientists, there is no specific program to enlist their capabilities in the creative science program.

Is this the wisest deployment of our scientific talent? Greater industrial participation in creative research has already been recommended both by the National Science Foundation and by industrial leaders. James B. Austin, vice president for research

and technology of the United States Steel Corp., recently observed that basic research was too important a national resource to be left "entirely to the random curiosity of the academic investigator" and urged that industry take an active part in basic research in its own laboratories.

Although industry has concentrated almost exclusively upon applied research and development, it possesses a number of important resources for the conduct of basic research.

The most important asset is the presence in industry of a large number of trained scientists. There are more than three times as many scientists employed full-time in industry as the full-time equivalent in colleges and universities.

What draws qualified scientists into industry in the face of its requirements to apply the scientific method solely to noncreative research? They recognize several advantages:

In industry the scientist is paid on at least the same scale as an engineer with equivalent responsibility. This is particularly attractive to the new

Harvard Business Review (July-August, 1958) © 1958 by the President and Fellows of Harvard College.

Ph.D., whose industrial compensation will be higher than a faculty salary in the lower academic grades.

Of more importance to the scientist's professional goals is the availability of the tools for creative research. The scientist of today needs expensive and complex equipment, particularly high-speed electronic computers for the simulation of physical systems and for data reduction—equipment that most universities cannot afford. Many industrial laboratories already have the most advanced models of these machines.

The industrial scientist also has an advantage over his academic colleague in the availability of engineers and technicians for the design, construction, and maintenance of specialized apparatus. In industrial research, the ratio of supporting technical personnel to professional research and development personnel is approximately 2 to 1, as compared with the 1 to 1 ratio in the colleges and universities.

Furthermore, while the scientist may decry the impediments of the organization man—budgets, research proposals and justifications, progress reports and schedules, and so on—many prefer these restrictions to the burden of undergraduate teaching, which can sometimes be very tedious. Work on applied problems in itself can be an advantage, for it diverts the scientists from established academic formulas and, through the close observation of new phenomena, stimulates new theoretical concepts.

There are, of course, some major obstacles to the full utilization of the creative research potential in industry, and some major steps to be taken to overcome them. Within industry

there is the problem of creating a more favorable climate for the conduct of basic research.* This is a difficult adjustment, since it apparently runs counter to the fundamental profit motive in private enterprise. The drive for an early return from money invested in research leads to an atmosphere of impatience with its unpredictable progress; and the more fundamental the research, the less predictable the outcome.

Industry must take a longer view. A fundamental scientific discovery must be looked on as a contribution, if not to the immediate welfare of the stockholders, at least to the general economic health of the nation and our free enterprise system. As for profits, management in many industries has seen that a sufficient percentage of these basic research results is relevant to the company's business to make the effort profitable over the long term.

Government sponsorship of creative research in industry would be a real stimulus. Such groups as the National Science Foundation can help by encouraging industrial laboratories, as well as universities, to apply for grants-in-aid for basic research.

Busy directors of applied research may wonder what the addition of fundamental research would do to their work load. Fortunately, scientists in pursuit of their individual insights are both highly motivated and notoriously independent. They require little if any direction and may, in fact, resent it.

The primary requirement for the

* For a discussion of how 105 experts view this problem, see *The Industrial Climate for Creativity* (page 4).

research director will be to keep sufficiently informed about the basic research to be able to evaluate the work and to relate it to his program of applied research should that opportunity occur. His heaviest responsibility will be to recognize those investigators who show promise of creative capability and whose independent, nondirected research should be encouraged.

This is quite a challenge. The research director may be well trained in one of the natural sciences and well versed in specific development problems but still be quite uninformed of the current activity in the fundamental scientific fields represented by the other individuals in his research group. Or his training may be in one of the engineering specialties, as opposed to a natural science. To meet this problem, product development laboratories often employ scientific advisers qualified to evaluate the more

fundamental aspects of their research activity. The technical screening committees of the National Science Foundation and Public Health Service can also provide a reliable source of assurance for both technical and non-technical management that the fundamental research going on in their laboratories has scientific merit, even if no one can predict whether the results will ever show a profit for the stockholders.

Finally, a favorable attitude toward independent creative research will undoubtedly attract more capable scientists to industry. No advertisement can do as much to establish the reputation of a concern within a given profession as the appearance of articles of substance in learned journals. This asset alone should give a systematic program of creative research as much management priority as a company-sponsored program of reimbursement for graduate study. ♦

Selling by Seminar

SELLING BY SEMINAR is an effective new sales technique being used by one company to cure the recession blues. Past as well as potential customers, suppliers—even competitors—are invited to day-long discussions and demonstrations of the company's products. The company, New Jersey Machine Corp. (Hoboken, N. J.), manufactures labeling, packing, and paper box machinery.

A recent session on automatic roll-fed labeling machinery produced this typical question from a potential customer: "We've heard many advantages of the machine. Now tell us what the disadvantages are."

The answer came from a man who owned one: "Because it's an electronic machine, our biggest problem has been set-up and maintenance. Our men tended to be a little hesitant about working on it at first—they called it 'The Monster.' Even so, the other day a new worker made a changeover in well under half an hour."

Such praise from satisfied customers is more credible than even understated claims by the company's own sales staff. The open discussion technique really wins customers, the company feels.

Are Your Marketing Dollars Going to Waste?

By Charles H. Sevin

Condensed from Indiana Business Review

IN MANY COMPANIES, a major percentage of total sales is brought in by a small percentage of customers, orders, products, and territories. But a good number of these companies fail to take this into account when planning their selling and advertising activities. The result is a serious misallocation of marketing efforts.

Even the better-managed firms seldom realize that a large part of their marketing effort brings in only a small percentage of their sales, because it is not easy to correlate specific sales with the selling or advertising efforts that led to them. A business as a whole may be making a good profit, but if it analyzes its costs and sales carefully, it will usually find that many of its sales are relatively unprofitable. Such sales are a heavy drain on potential profits. When time on an expensive television program is devoted to the promotion of a low-profit item, when a salesman spends time on an unpromising retailer, or when limited warehouse space is tied up by large stocks of a low-turnover, low-markup item, the costs to the firm are high. Valuable television time, sales effort, and warehouse space are thereby withheld from more profitable uses. If a salesman divides his time between one

product that earns the company \$5.00 an hour and another that nets \$12.00 an hour, then every hour spent promoting the former costs the company \$7.00.

The substantial losses on unprofitable sales resulting from haphazard spreading of marketing effort can be minimized or even eliminated by making certain that the marketing dollar goes where it can do the most good. This can be done with the help of distribution cost analysis, which can indicate to management where and how to apportion marketing effort to make the most of potential net profit possibilities.

How can management find out what the different segments of the firm's marketing process contribute to its costs, its profits, and its sales? Many businessmen are under the impression that they already know their cost and profit structure—after all, that is the information supposedly contained in their accounting records. However, current accounting techniques for recording the results of marketing activities are insufficiently detailed and show averages only. Moreover, their information is distorted by arbitrary cost allocations.

The first step is a breakdown of the firm's average cost and profit data.

Indiana Business Review (June, 1958), School of Business, Indiana University

Distribution costs must be allocated to the specific segments of the business for which they are incurred. For example, through distribution cost analysis we find that the sale of 1,000 cases of product A through medium-sized retailers located in the Chicago metropolitan area requires x dollars' worth of salesmen's time, y dollars in transportation and warehousing costs, z dollars in advertising expenditure, and so on. We then get the production costs and figure the net profits or losses for each segment separately.

The basic principles of the techniques used can readily be summarized:

1. The distribution expenditures of a particular business, which are usually recorded on a natural-expense basis, are reclassified into functional-cost groups which bring together all of the indirect costs associated with each marketing activity or function performed by that company.

2. The functional-cost groups are allocated to products, customers, and other segments of sales on the basis of measurable factors or of product and customer characteristics that bear a cause-and-effect relationship to the total amounts of these functional costs.

Suppose a distribution cost analysis reveals that, on the average, the sale of a dollar's worth of product X through x medium-sized retailers in Kansas City contributes more to profits than the sale of a dollar's worth of product Y through small retailers in Richmond. It is easy to jump to the conclusion that more sales effort should be allocated to the former and less to the latter. But

suppose, for example, that Kansas City is almost saturated with the product and the firm has a high share of the market, while the Richmond market is ripe for development. Clearly, it would not be wise to shift effort from Richmond to Kansas City.

Thus, the cost currently incurred by a specific segment of sales may be the right answer to the wrong question. It tells us how well the firm is doing now; but the firm wants to know whether it can do better in the future and, if so, how and where. Accordingly, we must know the answers to the following hypothetical questions: What would happen to marketing costs if more effort were pointed in one direction rather than in another? More specifically, how are changes in total costs in each sales category related to changes in volume in the same category? In effect, we want the cost-sales relationship for each sales segment and for each functional cost group. We need these data for both variable costs and separable fixed costs.

Where there is only one type of marketing effort in question, effort should be reallocated as much as possible to those segments of sales where an additional unit of marketing effort will yield the highest contribution to net profits and overhead, after reduction of variable costs.

In most companies, there are several types of distribution effort or cost to be considered. For example, the funds available for advertising may be limited, the salesmen's time fully occupied, and warehouse space may constitute a bottleneck. We then wish to promote those sales that make the best use of all three of these facili-

ties. But usually no one sales segment will do well with all of them. One product may use advertising dollars very efficiently because its sales can be increased with the aid of relatively little additional advertising expenditure. But if this product is a bulky one, its expanded inventory will employ relatively large amounts of warehouse space. Similarly, another product may yield large additional profits for each additional hour of the sales force's time, but small returns on each additional advertising dollar. The problem is to select that combination of sales segments (that is, products, customers, territories, and so forth) that will make optimal use of these several types of distribution effort.

In practice, most of the savings achieved through distribution cost analysis are due to its pinpointing of sales sectors to which marketing effort has been most glaringly misallocated. Using this technique, many managements have been able to redirect their efforts to achieve very substantial additions to profits.

In a business where marked misallocation of marketing effort exists, there are many ways in which this re-apportionment of marketing effort can be successfully accomplished. In some cases salesmen should call regularly only on major accounts; less productive accounts can be handled by mail or turned over to wholesalers. In other cases it will be simply a matter of rerouting an existing sales force so that the men will spend more time with the best customers. In still other cases, direct sales contacts may be discontinued in submarginal territories, while other sales territories may be consolidated.

It should be emphasized that a smaller total sales volume need not result from the policy of selective distribution. Ideally, money and effort saved in one unprofitable marketing operation can be diverted to another area where the payoff will be greater in both volume and profit. Thus, selective distribution, far from limiting expansion potential, permits the use of more funds for expansion in the right directions. ♦

Company Presidents Get into the Ad Game

COMPANY PRESIDENTS don't spend much time on advertising matters, but they make most of the major decisions in that area, according to a recent *Management Methods* magazine survey. The presidents questioned, representing firms of all sizes, said their role in advertising ranged from determining budget requirements (78 per cent did this job) to the actual writing or editing of copy (done by a minority of 7 per cent). Forty-eight per cent said they selected the company's agency, 45 per cent planned the advertising themes, 43 per cent selected media, and 40 per cent approved individual ads.

However, slightly more than half of the presidents said they spent no more than 3 per cent of their working day on advertising matters. A tiny minority of 2 per cent spent up to a fifth of their time on this aspect of their business.



Union Members

Make Themselves Heard

A RISING TIDE of complaints to the NLRB by individual workers who feel that they are the victims of unfair union practices is adding to the troubles of organized labor. In the first three months of this year, the NLRB had 600 cases in which individual workers charged unfair union practices. This was 25 per cent more than in the previous three months and more than double the rate of last summer.

"Rank-and-file employees are showing a determination to fight to the bitter end any actions considered discriminatory, including those taken by unions," reports Jerome D. Fenton, general counsel for the NLRB.

One reason for this trend, according to some labor relations men, is that a new kind of worker is coming onto the labor scene. He is neither ignorant nor passive. He knows his rights, and when he feels that a union is interfering with those rights, he makes a strong protest. In some cases, he is making his protest stick.

For unions, the implications are clear and immediate: an increasing number of their members will not be content to go along with union policies meekly and blindly. Manage-

By G. J. McManus

Condensed from The Iron Age

ment would be wise to sit up and take notice, too, because individual complaints to the NLRB against employers are also on the increase.

The recession has been an important factor in the new trend, particularly in the big industrial unions. But equally important has been an awakening to existing union conditions, say labor experts. This has been due both to the higher educational level among workers and to the fact that workers' rights have become more firmly established and widely known. Decisions by the NLRB and the courts have clearly spelled out the meaning of the Taft-Hartley law. Finally, the McClellan committee's disclosures of union abuses may have aroused many already resentful workers to action.

Most of the complaints to the NLRB by individual workers involve job discrimination. Some of these concern men losing out because they are not members of a union. Others involve union members who are bypassed because they are out of favor with the union leadership.

The Iron Age (June 26, 1958), © 1958 by Chilton Company.

Although the Taft-Hartley law says that a man can't be barred from working because he is a member of a union or because he is not a member, this principle has been modified to permit union shop agreements, provided they allow nonmembers to join the union within 30 days. However, court decisions have restricted the union shop in several important ways. For one thing, the qualifications for union membership have been limited to payment of initiation fees and dues. The Supreme Court has said workers may be "good, bad, or indifferent members without imperiling their livelihood."

Numerous complaints to the NLRB have turned on this principle. For example, the Board ruled against the International Union of Operating Engineers in cases involving the discharge of five men who would not join the particular union branches stipulated by the union. The Board held that the union was using job coercion for internal policing of its organization. In another case, the NLRB ruled that a Teamster local had acted illegally after an intra-union fight when it applied job pressure to men who had supported the losing side. Another recent ruling was that the International Longshoremen's and Warehousemen's Union could not block employment of men who had failed to join a strike.

Another type of individual complaint to the NLRB involves discriminatory labor agreements. These include contracts or agreements that give unions sole and unlimited say in the hiring of employees, as well as arrangements that give them full say on seniority questions.

There has been a gradual narrowing of union power in this area. Recently, the NLRB listed three general conditions limiting hiring agreements. Any hiring agreement must now definitely state that the union will not discriminate against nonmembers in making job referrals, must give employers the right to reject men sent by the union, and must provide for public posting of these two safeguards.

If a man has been deprived of work unfairly, the NLRB customarily orders him restored and directs the offending party to make good any lost pay. Until recently, there was a question as to the liability of unions in cases of unfair labor practices. Unions contended that since the NLRB had sole jurisdiction in such cases, the worker could not go to court to collect damages.

However, two recent Supreme Court decisions have rejected this interpretation. One case involved an Alabama worker who said he lost five weeks' wages because UAW pickets kept him from entering his plant. A state court awarded him \$10,000 in damages. In the second case, a California machinist charged that he was illegally expelled from a union and that this led to loss of work as well as mental and physical suffering. He was also awarded damages by a state court.

Both awards were subsequently upheld by the Supreme Court. The significance of these decisions was pointed out by two justices who dissented from them: Unions may be forced to curb their activities because they are now open to "staggering punitive damages." ♦

**As international fairs grow more important
in marketing, manufacturers are anxious
to use them to best advantage . . .**

Selling more effectively through Trade Fairs

Condensed from International Management Digest

THE VISITOR at the recent German Industries Fair in Hanover knew exactly what he wanted: a machine to make "dying pigs." After considerable language difficulty, it was discovered the man had been importing toy balloons made in the shape of a pig—which produced a "dying pig squeal" when the air was released—and he wanted to mold them himself. His mission ended in success.

A humorous example, perhaps, but it illustrates the growing importance of international fairs in marketing. The man traveled a long way to wander around the exhibits at the German Industries Fair, and he was interested in buying, whether he found what he was looking for or not. An exhibitor will travel just as far to open up new markets—be he a Swiss tool-maker at the recent Osaka fair or an Italian designer of an automatic ravioli machine at the May international trade fair in New York.

However, the manufacturer who wants to exhibit his products will soon find out that there is more to it than taking orders. Problems and frustrations abound: the increasing number of national propaganda pavilions; too many sight-seers and too

few buyers; customs nightmares; fairs with conflicting dates; booth assignments and traffic patterns; exhibit design; and many others.

How can you measure the value of exhibiting at a trade fair? "Serious inquiries" is the most widely used measure. But one promoter of trade shows suggests that a company measure effectiveness in these terms:

"In a well-organized exhibition, you can count on making something like 40 or 50 contacts a day—about 10 times more productive contacts per day than a salesman can make in the field. If you know the average cost of your salesman's call, then you can compare what it costs 'per call' to participate in an exhibition."

But more important than such cost figures, according to this trade fair promoter, is that the buyer comes to you—and in a receptive frame of mind.

Costs are greatly increased by hospitality suites in hotels and expense-account entertaining. Although many companies consider these extra expenses essential, one small U.S. company proved it could exhibit at five trade shows for no more than it had been spending on its one annual

*International Management Digest (July, 1958), © 1958 by
McGraw-Hill International Corporation.*

"trade-show fling." It set a strict budget of \$2,500 for each show, cut out all entertaining, reduced the size of its exhibit, and limited the display to new products. Usually two men attend the booth, helped by a locally-hired girl who registers visitors and fills out inquiries on a special form. With this strict attention to business, cost per inquiry has been half the cost of inquiries from trade paper advertising.

Many companies participate in trade shows strictly for the public relations value, and make little or no effort to sell. Some are content just to operate message bureaus. But for those seriously interested in improving their exhibits, there are some workable principles that can be followed. American studies have turned up some of the factors that determine the "functional impact" of an industrial exhibit. The "best-remembered" exhibits, according to these studies, feature a continuous telling of the product story, with emphasis on applications—product display is not enough. Attention-getting devices should be functional and not just something "unusual." One study also commented negatively on the use of pretty girls to help get across a sales message: "The prettier the girl, the less impact for the sales message."

Some products do not readily lend themselves to demonstration. For these, display experts suggest motion pictures, closed-circuit television, small functional models—any kind of ingenious device that will help to explain how the product is used.

Perhaps exhibitors' patience is tried the most by the complex red tape and restrictions involved in getting exhibit

material into the country where the trade show is being held. In West Germany, for example, an unframed photograph is admitted duty-free as advertising material, but framed pictures are subject to duty or re-exportation. Another West German quirk is that most exhibit construction material is duty-free—with the exception of paint. Almost all countries, incidentally, exempt construction and decorative materials, subject to re-exportation or destruction.

Britain grants exemption to "small" amounts of advertising material, but not enough to meet the needs of a trade show. And decorative materials must be re-exported within 15 days after the fair (custom duties go into force then).

For exhibitors, a touchy point is whether they can sell products on display to recover their outlay or to dispose of bulky or perishable products. If the sales come out of the normal import quota, there is seldom any problem. And many countries allow special quotas for specific fairs. Because of the profusion of special regulations, it is a good idea to separate products and exhibit material in shipment.

Harried exhibitors, of course, would like to see customs regulations eased and simplified. They recommend other changes, too. For one thing, they'd like to have each country limit itself to one general fair a year. Annual fairs should start on the same date each year, should not conflict with other fair dates, and should run for one week. And all exhibit halls should be "bonded warehouses" for customs purposes.

Recent announcements of new

fairs have indicated that the exhibitors' needs are not being ignored. Chicago, for example, in putting on an international trade fair in July next year, will provide a free market-counseling service to evaluate foreign products in terms of pricing, design, competition, and distribution. Another service will be a specific exhibit

area reserved for the negotiation of licensing agreements. A world marketing conference will be held in conjunction with the fair. And not least, the fair management will help arrange to have exhibits at the New York world trade fair—scheduled for May—shipped to Chicago and stored until July. ♦

How Not to Set Prices

THERE IS NO MORE AGREEMENT on how to set prices than on how to solve the parking problem, if you go by the variety of styles used by the executives who do the job for their companies. Recently, Donald D. Couch, vice president of marketing and commercial development for American Radiator & Standard Sanitary Corp. (New York), worked up this list of some different types of pricing specialists and the idiosyncrasies to which they are firmly dedicated:

1. *The Einstein.* This advanced mathematician and superb chartist draws trend lines by the method of least squares, weights averages, plots standard deviations, and derives his pricing conclusions from the magical point on the chart where the lines intersect. Although you need facts and figures, The Einstein is too often ostrich-like in his unwillingness to recognize that external influences can change the pricing picture.

2. *The Ratio Specialist.* To him, a previously established gross profit percentage goal is sacrosanct. Occasionally, he may deviate slightly and focus on a return-on-investment ratio. Ratios have their place, of course. The problem arises when they become sacred.

3. *The Traditionalist.* He contends that his company has successfully priced the same way for years—and has been paying regular dividends. He prefers the status quo, and warns everyone not to rock the boat.

4. *The Maverick.* His operating principle is that a pricing strategy more than three years old automatically should be changed. He thrives on pricing turmoil and is at his peak when none of his customers can understand his price sheets.

5. *The Quick-Change Artist.* He dashes off a new price sheet, puts it in the mail, then waits for the reaction. At the first murmur, he backs down and issues a revised quotation. His prices sway with each market breeze, and often he furnishes a 4-inch binder so customers can file price-change bulletins.

6. *The States Righter.* This strategist can't bring himself to adopt anything that smacks of a national policy. He wants a flexible approach that gives each individual marketing area its own prices, terms, and adjustments. Sometimes that's feasible, but besides being tough to administer, it's hard to explain to customers and, sometimes, to the U. S. government.

—Steel 6/16/58

Supervisory policies and practices in 163 U.S. companies . . .

TODAY'S SUPERVISOR: *Still Management's First Line*

*Condensed from
Personnel Policies Forum*

WITH the encroachment of union agreements from one side and steadily spreading staff activities from the other, it would be logical to assume that first-line supervisors in most companies today have been deprived of much of their authority and responsibility.

That this is not at all the case is clearly indicated by a survey of 163 companies of all sizes recently com-

pleted by the Bureau of National Affairs. The survey produced an informative picture of company practices and policies in the areas of supervisory pay, fringe benefits, responsibility and authority, communications, and special privileges.

Most respondents made it clear that they give the man on the firing line the backing he needs to do a job as management representative. More than 95 per cent of the companies, for example, entrust supervisors with full or principal responsibility for training and first-stage grievance work. About 90 per cent almost always adopt their supervisors' recommendations on discharge, transfer, promotion, and demotion. Three fourths of the firms make the supervisor the key man on decisions involving wage increases, and two thirds give him a voice in selecting new employees for his department, with the right to reject those he considers unsuitable.

Restrictions on supervisory authority are usually fewest in the areas of training and of handling first-stage grievances, and most numerous where initial selection of new employees and recommendations on wage increases are concerned. Most respondents explained that limitations on supervisory authority are partly due to union agreements and partly due to company policy.

When it comes to pay policies, it is an almost universal practice to pay first-line supervisors a salary; only 7 per cent of the responding companies pay their supervisors by the hour. But the companies are almost evenly divided when it comes to overtime pay for the first-line super-

Personnel Policies Forum (July, 1958), © 1958 by The Bureau of National Affairs, Inc.

visors: 45 per cent do pay overtime, the rest don't. Of those firms that do pay overtime, many attach important limitations. Some typical restrictions limit overtime payments to situations where the extra work is scheduled, where it exceeds a specified number of hours a week or month, where it continues for a specified minimum period, or where the department as a whole is scheduled for longer working hours. A restriction reported by some respondents is the payment of time and a half to nonexempt supervisors, with smaller payments, or none, to those who are exempt.

Of the companies that pay supervisors for overtime, more than a third pay time and a half, and a similar number pay straight time. In 7 per cent of such firms, the rate varies with the salary grade, and in 9 per cent it varies with the amount of overtime worked. In 58 per cent of the companies that specify the dividing line between regular and overtime work, extra pay begins after 40 to 48 hours a week; in 14 per cent it begins after more than 48 hours; and in another 14 per cent it begins after eight hours in a day or 40 in a week. The remaining 14 per cent use a variety of methods.

Only 24 per cent of all the responding companies pay supervisors a premium for working the second or third shift. Premium pay for weekend work is even rarer; only 20 per cent maintain this practice.

Larger companies are much more likely to have some formal system for giving merit increases to supervisors than are smaller ones, according to the survey. Some 65 per cent of the larger companies (1,000 or

more employees) in the survey have such systems, but only 30 per cent of the smaller firms do.

Seniority plays little direct part in salary advancement for supervisors; only 16 per cent of the responding companies tie salary increases to length of service. However, seniority may be included as one of the several factors, or may be used in granting increases to new supervisors until they reach a point beyond which further increases are based on merit.

Although 44 per cent of the responding companies say they have neither a merit plan nor a provision for increases based on seniority, all but 7 per cent review supervisors' salaries at regular intervals. In the handful of remaining firms, supervisors presumably are dependent on informal individual discussions.

Nonincentive bonuses for supervisors are more commonly given than incentive bonuses, the survey revealed. About a fifth of the responding companies give special pay consideration to supervisors in the form of non-incentive bonuses not given to rank-and-file employees. The practice is more frequently found among larger companies than among smaller ones: 30 per cent as against 18 per cent. This extra compensation is usually in the form of year-end or Christmas bonuses; a few companies use profit-sharing arrangements. Some companies base their year-end bonus on percentage of salary (ranging from 5 to 20 per cent), others on formulas based on year-end profits and performance review, and still others on salary and length of service.

Incentive bonuses are given by only 14 per cent of the companies. Most

such bonuses are calculated on the basis of the production volume of the men working under the supervisor, but many are based on the extent of cost reduction achieved.

In companies using an incentive system or where workers are putting in a large amount of overtime, supervisors may find themselves earning less than some employees under them—and their morale is likely to suffer. How are companies handling this problem? About 40 per cent of the responding firms attempt to keep such situations from developing by paying salaries that will guarantee supervisors at least a minimum percentage over the salaries of their highest-paid subordinate. Among the companies without this policy, many expressed the opinion that although a subordinate may occasionally earn more than his supervisor on a weekly basis, the supervisor usually comes out ahead on a yearly basis. Figures provided by the companies in the survey seem to support this reasoning. The majority of these companies (70 per cent) report that their supervisors enjoy pay differentials of from 15 to 24 per cent over the pay of the highest paid rank-and-file workers.

What factors does a company take into account in deciding how much a supervisor's job is worth, and what is the relative importance of these elements? An overwhelming 98 per cent of the responding companies said they consider responsibility as a factor; 93 per cent consider the number of employees supervised; 91 per cent consider the complexity of the work; 90 per cent consider training and education required; 75 per cent consider length of service; 12 per cent

consider physical demands and working conditions; and 6 per cent consider ability to deal with people. Most companies give the heaviest weight to responsibility, complexity of work, number of employees supervised, and training and education required.

In about 80 per cent of the responding companies, first-line supervisors get at least some fringe benefits that are either more liberal than those given the rank-and-file workers or are not given to the latter at all. Most commonly, these benefits are paid sick and personal leave and severance pay.

In the area of communication with first-line supervisors, better than 90 per cent of the companies consult with supervisors before instituting changes in personnel or production policies in their departments and about 80 per cent of the companies that bargain with unions consult with supervisors about prospective union dealings. The supervisors' meeting is by far the most popular medium for transmitting information in a formal way—95 per cent of the companies use this method. Other formal methods used are: systematic procedures by which supervisors can transmit their ideas and suggestions up the line, 40 per cent; special informational bulletins, 33 per cent; advance financial information, 33 per cent; and organized procedures for handling supervisors' grievances, 30 per cent.

Responding companies reported a variety of privileges and special concessions that are given to first-line supervisors, ranging from one public utility company's practice of putting

foremen's names on the trucks assigned them to the provision of educational assistance or paid membership in professional associations. In terms of frequency, the time-honored exemption from punching a time clock leads the list, with 88 per cent of the companies allowing this privilege. Other widely granted privileges

are provision of a private desk, 83 per cent; paid subscriptions to trade and professional publications, 70 per cent; a private office, 55 per cent; special parking privileges, 47 per cent; special discounts on company products or services, 26 per cent; and separate washroom facilities, 22 per cent. ♦

Health Insurance for the Over-65 Group

PAYING THE COSTS of medical care is being made easier for older workers and those who have retired. According to J. F. Follmann, Jr., director of information and research of the Health Insurance Association of America, the benefits of insurance protection are now more generally available to older people.

Six principal methods—some of which have been developed entirely within the past five years—are being used today by insurance companies:

1. *Continuation of group insurance on older workers.* The Bureau of Accident and Health Underwriters in 1954 found that out of 43 companies surveyed—writing 72 per cent of all group accident and health insurance—37 would write the same coverage for active over-age employees as for others.

2. *Continuation of group insurance on retired workers and their dependents.* Thirty-six of the 43 companies in the same survey wrote coverage on retired employees and their dependents. Nineteen of these offered the same benefits as those provided under the original group policy, while the others reduced or limited benefits to some extent.

3. *Continuation on an individual policy basis of coverage originally provided by group insurance.* It is now becoming general practice in the field of group insurance to make available the right of conversion to an individual or family policy upon termination of employment.

4. *New issuance of group insurance at advanced ages.* A recent development is the practice of issuing group insurance policies to groups or associations of retired persons or employees. Of course, such policies involve a cost reflecting higher medical expenses of the aged and do not have the usual advantage of employer contributions.

5. *Continuation of individual insurance previously purchased.* Another survey conducted by the Accident and Health Underwriters in 1954 indicated that, of 186 companies queried, half would continue policies with no age limit and 15 would continue coverage until age 75.

6. *Issuance of individual insurance which becomes paid up at age 65.* Several companies have recently made available policies which would be paid up at retirement age. The idea is to enable the policyholder to purchase his health insurance during the productive years.

—Elmer Miller in *The Journal of Commerce* 4/10/58



COMPANY CLIQUES:

They Can Become an Asset

By George S. Odiorne

Condensed from Nation's Business

THE MANAGEMENT of cliques is a rapidly growing field for executive action. In fact, Dr. Chris Argyris of Yale believes that better management of informal organizations may be the next big breakthrough in management theory and practice. He and other social scientists declare that the dual goals of the clique in business—security and participation in the decisions that affect them—are being given greater attention in the organization planning of many firms.

No mere academic exercise, the management of the clique is for high stakes. For example, cost reduction programs have often proven ineffective because the people at the top of the organization can't seem to maintain touch with the people at the bottom, no matter how loudly they shout or how keenly they listen. Probes to find the reason have indicated that the clique is the main block to real communication.

In other cases, policies, procedures,

and rules just don't work the way they were designed to work. Cliques are constantly reaching new heights of ingenuity in undermining incentive and methods improvement programs.

Still another management problem that can be traced to the clique is the failure of specialist groups to coordinate because of poor communication. In many engineering and research labs, for example, the multiplicity of technical jargon used by the cliques creates a virtual tower of Babel.

Another damaging aspect of the clique is that it forces its members to suppress their individuality in order to retain popularity with the informal group with which they work. Imitation and blind cooperation become more desirable than individual effort and creativity.

Since management can neither order cliques out of existence nor circumvent them, the logical solution is to manipulate these informal

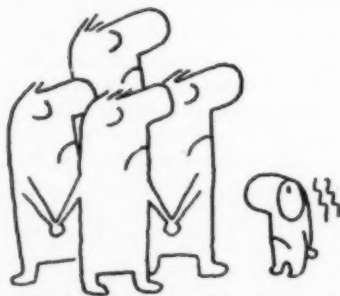
Nation's Business (August, 1958), © 1958 by *Nation's Business*—the Chamber of Commerce of the United States.

groups so they will act in the firm's interest. This can be accomplished by taking these steps:

1. *Accept the existence of cliques.*

The management which, on hearing that cliques exist, reacts with a vow to wipe them out or with a denial that they have infiltrated the company is only making it harder to treat the problem in a more sophisticated, constructive way.

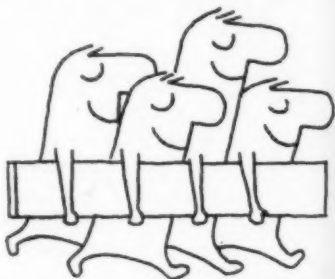
2. *Teach managers to understand clique behavior.* Human relations training in the past has often been oriented toward the study of individual behavior and has ignored group processes. Understanding of individual motivation without some practical knowledge of how the clique modifies behavior is only half the story. For example, Mary Jones may want to produce more work in the typing pool, but she has learned that if she is too productive she won't be invited to the little luncheon and gossip dates which also are important



Clique behavior should be studied.

to her. Making sure that the supervisor, the manager, the technician, and the staff man understand the basic importance of such clique influence is a key step in managing the informal organization.

3. *Catalog existing cliques.* This is best done by the personnel who have the closest contact with the people involved. A foreman, for example, will know his people as individuals and can easily plot out the major cliques in his department. He knows



Cliques can increase productivity.

that the mechanics are one clique, the old-timers another, the operators in certain sections a third, and so on.

Top management can usually spot the major clique divisions. Generally, these will include:

1. Top management itself—the men on mahogany row.
2. Supervisors—the white-collar bosses in the shop.
3. Technicians—accountants, engineers, and others whose work is primarily concerned with improving other people's effectiveness.
4. Workers—the clerks, typists, machine operators, laborers, salesmen.

Within each of these major divisions are smaller cliques. The girls in the secretarial pool from a particular school, the engineers in the sales force, the Harvard Business School men in executive row—all those may be cliques.

In identifying cliques, look for

such as affection, pride, insecurity, hatred, or simple gregariousness. Sometimes direct questioning will elicit accurate answers about cliques. People are especially aware of cliques above them in social status, or to which they aspire. However, they often deny the existence of their own clique, not because they want to hide its existence, but simply because they don't recognize it as one.

4. *Study clique operating techniques.* The most important operating technique from management's viewpoint is the clique's ability to control its members' actions, especially their productivity, creativity, and cooperativeness. A worker who does more work than the clique arbitrarily decides to be a reasonable amount risks ostracism. This control system can work to restrict output or upset the most soundly planned incentive system. It can also bring fabulous success to any management plan that fits in with the special goals the clique has set.

The weapons of control most often used are exclusion from luncheon groups, small talk, help on the job, and other social activities.

5. *Work through informal leadership.* Every informal organization has its informal leaders. They are the individuals who seem best to articulate the emotional attitude of the group, and are most sensitive to its sentiments. Once established, they are entitled to lead the group in

particular situations, police backsliders, and set an example for the rest.

It is here that the greatest opportunity exists for working through the clique. If the assigned foreman, office manager, or executive gains the support of the clique, he can become its leader, even though he has a singular role in the group and serves management first. Speaking the language of the clique, he can move the group toward standards pleasing to it and at the same time satisfactory to the company.

A manager in good standing in several cliques is in a position to use his influence to bring about productive unity of effort. Managers normally find that they need the cooperation of three or more cliques in order to be able to function with any success.

6. *Consult cliques when planning facilities.* Being founded on sentiment, the clique cannot rise above the somewhat petty considerations of small differences in working conditions. It will buzz loudly at changes in desks, work layout, conveniences, and facilities which the social scientists call status symbols. Complaints and resistance are not based on actual physical comfort or discomfort, but on the social effects of change on the group. Thus consulting key cliques may be an important consideration in the planning of facilities. ♦

YOU WILL NEVER "FIND" time for anything. If you want time, you must make it.

—Charles Buxton

Check-Up on Pension Programs

HAS YOUR COMPANY reviewed its pension plan recently? Too many employers, having satisfied themselves that their plan was the best obtainable at the time it was established, fail to take advantage of the sound innovations that are constantly being developed to reduce operating costs. A periodic review and audit will often reveal areas where money can be saved without the sacrifice of any of the benefits that have been established. Here are some of the questions that should be asked:

Plan Design. Are benefit schedules in line with those in the company's area and in its industry? Are eligibility provisions too low, considering the funding medium? If optional methods of receiving benefits are available, are they subject to control so that the potentially more expensive benefit is selected only in the circumstances it was designed to meet? Is the early-retirement benefit designed in such a way that it is subject to overuse? Is the late-retirement provision designed so that employees whose working capacity is drastically reduced may continue working past their normal retirement date?

Funding Medium. This is a critical factor in determining what the current costs of a plan will be. Is the most economical method of maintaining the plan's funds being used? Is it a suitable method for the plan, considering the size and characteristics of the work force? Have newer concepts of funding been examined to see whether a change in the medium holding the funds could produce a more economical operation?

Funding Method. Is there enough flexibility in the method of meeting the annual outlay so that the employer can gear his contributions more closely to the ups and downs of his financial situation? Is the company taking full advantage of the variety of methods of meeting past and future service liability costs that are available under the Treasury Department regulations?

Investment Return. Is an adequate return being obtained on investments? Does the group holding the fund have any policies that might discourage the highest rate of return consistent with the safety of the fund and the applicable laws and regulations?

Expenses. Does the employer have a clear picture of all the expenses, both direct and indirect, that are involved in the operation of the plan? Is unnecessary administrative expense being borne by the company?

—Letter on Employee Benefits 4/58

THERE WERE FEWER STRIKES and man-days lost because of strikes in the first six months of this year than in any corresponding period since the end of World War II, according to Labor Department figures. However, the number of workers involved in these work stoppages was slightly higher than during the first six months of 1957. During the January-June period of this year, strikes made about 720,000 workers idle, compared with 690,000 for the similar 1957 period. The stoppages resulted in slightly more than 7,350,000 man-days of idleness, amounting to 0.13 per cent of all working time.

—The New York Times 8/5/58

Many companies are finding that it pays to keep their employees healthy . . .

EMPLOYEE HEALTH PROGRAMS IN INDUSTRY— A SURVEY

*Condensed from
Industrial Nurses Journal*

MANY COMPANIES are broadening their conception of employee health programs to include responsibility for employees' health off the job as well as on. This is a key finding of a study conducted recently by the University of Michigan Survey Research Center for the U.S. Public Health Service. The survey covered more than 250 businesses of all sizes in various parts of the country.

Among the companies with employee health programs, nine out of ten said their programs included more than the treatment and preven-

tion of on-the-job accidents and illness. And many of them are inclined to judge the effectiveness of these programs in terms of employee needs and satisfaction, rather than of dollars and cents alone.

However, those companies with health programs were in the minority. About 60 per cent of the companies covered in the study had no regular doctor or nurse, and 40 per cent did not even have regular first aid. About one in five companies had either a doctor or a nurse on a part- or full-time basis, while the remaining 20 per cent had both a doctor and nurse. The proportion with health programs rose steadily with the size of the firms.

Doctors and nurses interviewed in the survey were most likely to mention first aid and treatment of injuries as part of the health service program. But treatment of non-occupational illness—like colds—and administration of pre-employment physical examinations were also frequently mentioned. Chest x-rays, periodic physical examinations for employees, and immunization programs were referred to less often.

The cost of employee health programs was generally found to be low: salaries of nurses and doctors rarely exceeded one-half of one per cent of payroll. In firms employing more than 500 people, the cost to employers was usually less than a quarter of one per cent of payroll. Many firms, the study asserts, save enough in reduced workmen's compensation premiums to pay the salaries of the doctor and nurse, and there are other potential savings in reduced absenteeism, lower health insurance costs, and greater employee efficiency.

Industrial Nurses Journal (May, 1958), © 1958 by American Association of Industrial Nurses, Inc.

While more than 90 per cent of the firms with employee health programs felt their programs were effective, more than half said they could be improved. When asked about specific improvements, nearly one out of five of these companies mentioned the adoption of periodic physical examinations for employees. Provision of other health services and addition of medical personnel were mentioned with the same frequency.

In nearly half of the companies surveyed, all employees were given pre-employment physical examinations. One fifth of the companies gave them to some employees only, and the remaining third gave no pre-employment physicals at all.

Most of the companies giving pre-employment physicals made only limited use of the data they gathered. Nearly half said such data was used only for the rejection of unfit applicants. One third use the data both for rejection and for job placement. Commenting on these figures, the study observed, "More judicious and more preventive use of the physical could perhaps cut the over-all cost of this item and improve union, employee, and public relations."

Similarly, while nearly all firms surveyed said they kept sickness and injury records, nearly one third made no use of this material as a guide in trying to reduce sickness and injury. Only a small fraction of the com-

panies in the survey gave their employees periodic physicals. However, more than half the companies with a regular doctor gave such check-ups to at least some employees.

Widely divergent attitudes toward employee health programs were revealed by the survey. At one extreme were the companies who felt responsible for the non-occupational health problems of their employees. In explaining this attitude, managers were most likely to mention greater employee efficiency or a general sense of obligation toward employees. Others expressed the feeling that such an interest raised employee morale and reduced absenteeism.

Contrastingly, observed the study, in companies that have no health service program, "There is evidence that management's conception of health services is a room where the bloody, the battered, and the bruised are carried in on stretchers. Such an attitude is a substantial barrier to further expansion of the number of employee health services. If managers' ideas about what health services can do were broadened beyond this injury conception, their cost-return calculations undoubtedly would be more favorable. Failure to adopt a health service is due not so much to definite resistance to the idea as it is to a lack of information about costs and values of employee health services." ♦

THE CIRCUMSTANCES OF THE WORLD are so variable that an irrevocable purpose or opinion is almost synonymous with a foolish one.

—W. H. Seward

BRIEF SUMMARIES

of other timely articles

GENERAL

THE FORTUNE DIRECTORY: THE 500 LARGEST U.S. INDUSTRIAL CORPORATIONS. *Fortune* (9 Rockefeller Plaza, New York 20, N.Y.), July, 1958. Reprints gratis. This fourth annual directory of the 500 largest U.S. industrial firms shows that despite the downturn in the last half of the year, both sales and profits for the 500 rose in 1957, but the average profit on sales was lower in all major industry groups than it was in 1956. According to the new statistics, 37 companies had sales of over \$1 billion—as compared to 32 in 1956; 15 companies had net profits of more than \$100 million—one less than in 1956; and 24 companies had more than \$1 billion in assets—an increase of two over the previous year. Includes tables.

BUSINESSMEN'S STAKE IN REGIONAL PLANNING. By Norton E. Long. *Harvard Business Review* (Soldiers Field, Boston 63, Mass.), July-August, 1958. Reprints \$1.00. Pointing out that the bulk of our population now lives in metropolitan areas, the author maintains that responsibility for the problems of these areas must be shouldered by business as well as by local government. Citing case histories of experiences in regional planning, he concludes that: (1) Big names, committees, meetings, and headlines fail to add up to big accomplishments; (2) the most effective single appeal across lines of political and social cleavage is that all metropolitan interests are in one economic boat; (3) to put muscle into regional planning, "private-enterprise TVA's" are needed—for example, public utilities or

banks with interests concentrated in the region and capable of thinking ahead about the territory as a whole; and (4) a mixed private-public development corporation would help to provide the kind of enduring institution needed and also to broaden the base of participation.

BUSINESS WEEK REPORTS TO READERS ON COMPUTERS. *Business Week* (330 West 42 Street, New York 36, N. Y.), June 21, 1958. 50 cents. A comprehensive progress report on the role of the computer in business today—the extent of its present use, costs vs. results so far, some of the unsolved problems (including problems of human relations), and the potentialities that lie immediately ahead. Supplements to the main report include a formula for estimating the costs of installing and running a computer and a practical list of do's and don't's, based on company experiences.

REPORTS: A PROBLEM IN THE CONTROL FUNCTION OF MANAGEMENT. By Morris Budin. *Advanced Management* (74 Fifth Avenue, New York 11, N.Y.), June, 1958. \$1.00. Because the growing complexity of his job forces today's executive to substitute "management by exception" for direct supervision of the many facets of the business, reports have become a key to good management, observes the author. He warns, however, that review by exception may tempt reporting agencies to be dishonest in their reports in the hope that problems in their departments will be solved before the next report period, and he suggests several

changes and modifications in the relationship between the reporting and control functions.

HOW TO MANAGE IMPROVEMENT.

By Leo B. Moore. *Harvard Business Review* (Soldiers Field, Boston 63, Mass.), July-August, 1958. Reprints \$1.00. While every manager says that he is "for" improvement, the author contends that the mere desire for improvement does not produce it and that most managers become so busy with those things they must do that they don't get around to those things they would like to do. Accordingly, he proposes that management think of improvement as a process in itself—as distinct in its needs and demands as planning, control, or any other managerial process—and offers some philosophies and procedures to aid in this process.

MEN UNDER PRESSURE. By Ray Vicker. *Today's Health* (535 North Dearborn Street, Chicago 10, Ill.), July, 1958. 35 cents. Because good health is a prime requisite for proper executive

decision-making, companies throughout the U.S. are coming to view executive health programs as dollars-and-cents investments rather than luxuries, the author reports. Citing a survey which found that among 5,000 executives of 30 companies 41 per cent were in sub-standard health, he emphasizes the need for thorough examinations which will result in more efficient executives, improved morale, and uninterrupted production.

RESISTING BUSINESS CONTRACTION.

(Economic Research Department, Chamber of Commerce of the United States, Washington 6, D.C.) 50 cents. Although government must create the climate for recovery, there is much that the individual businessman can do to restore prosperity and get the economy back on the road to long-range growth, this pamphlet maintains. Among the private actions against the recession that it urges are updating of plant and equipment, increased research and development to bring new products to the market, stronger sales efforts, and realistic cost control.

INDUSTRIAL RELATIONS

INTERPERSONAL UNDERWORLD.

By William C. Schutz. *Harvard Business Review* (Soldiers Field, Boston 63, Mass.), July-August, 1958. Reprints \$1.00. Strong interpersonal differences existing within a management group cannot be effectively handled by ignoring them, the author cautions, for they will either turn up in subtle forms such as loss of motivation, tiredness, or the group member's preoccupation with outside tasks or they will get entangled directly with the solution of the task. His suggested approach to this problem is oriented toward the unconscious processes of behavior, and provides ways of measuring individuals' capacities for interaction and predicting what combinations of individuals will be able to work together effectively.

SERVICE BENEFITS—AND HOW TO COMPARE SERVICE VS. INDEMNITY BENEFITS: Parts B and C, Study No. 1.

(Foundation on Employee Health, Medical Care and Welfare Inc., 477 Madison Avenue, New York 22, N.Y.) \$1.00. This study by the Foundation—which was established as a joint labor-management undertaking to provide guides for purchasing health, medical, and welfare benefits—supplements its earlier report, which was primarily concerned with indemnity benefits sold by insurance companies. The present study examines the benefits available through service plans (primarily sold through nonprofit organizations like Blue Cross and Blue Shield), and presents guides for comparing competing service and indemnity benefits.

TIPS TO SUCCESSFUL DISCIPLINE. By Paul A. King. *Factory Management and Maintenance* (330 West 42 Street, New York 36, N.Y.), June, 1958. Reprints gratis. If plant rules are to stand up under arbitration, the author states, a company has to observe six basic principles in formulating them: make the rule reasonable, stay out of private lives, publicize rules, correct—don't punish, make the punishment uniform, and grant the benefit of a doubt. He discusses techniques for dealing with such common disciplinary problems as absenteeism, loafing, carelessness, drinking, gambling, thieving, etc., citing several examples of each.

PRODUCTION

INDUSTRIAL ULTRASONICS COMES OF AGE. By Melvin Mandell. *Dun's Review and Modern Industry* (99 Church Street, New York 8, N.Y.), June, 1958. 75 cents. "Silent sound"—i.e., vibrations in gases, liquids, or solids that are above the audible limit—is being used increasingly today for many specialized industrial jobs, including cleaning, testing, and various types of processing. This article reviews the status of ultrasonics in industry today and the new developments that promise to bring the costs down.

HOW TO MAKE TODAY'S PRODUCTION CONTROLS CUT COSTS IN YOUR PLANT.

By H. Ford Dickie. *Factory Management and Maintenance* (330 West 42 Street, New York 36, N.Y.), June, 1958. Reprints 50 cents. For the company that wants quick, sharp cuts in production costs, the author recommends the following steps: find the major area of expense, initiate a vigorous inventory reduction drive, compare measured output of various people performing the same kind of work, and speed up your educational program. In this discussion of cost-cutting production controls, he also describes the successful use of sales forecasting, mechanization, and new dispatching techniques.

ORGANIZED LABOR'S VIEWS OF CORPORATE FINANCIAL INFORMATION. By Wilbur F. Pillsbury. *The Journal of Accountancy* (270 Madison Avenue, New York 16, N.Y.), June, 1958. Reprints gratis. Although union officials do not often question the truthfulness of corporate financial statements, they think some accounting practices misleading and often find adequate financial information lacking, says the author, reporting on a survey of research directors of 35 labor unions. Some of the additional items unions would like to see in financial reports are detailed breakdowns of costs, break-even points, and comparative industry figures.

DOES AUTOMATION RAISE SKILL REQUIREMENTS?

By James R. Bright. *Harvard Business Review* (Soldiers Field, Boston 63, Mass.), July-August, 1958. Reprints \$1.00. In contrast to what most people have been saying on the subject, the author of this article maintains that automation does *not* increase the demands on the worker's skill, education, and attention—and in some instances does just the opposite. Documenting his opinion with case studies of automated plants, and analyzing the extent of the workers' physical effort, training and education, and mental effort, he concludes that although in the early stages of mechanization the demands on the worker seem to increase, they automatically decrease beyond a certain point of advancement.

WHAT MANAGEMENT SHOULD KNOW ABOUT MATERIAL HANDLING.

Flow (812 Huron Road, Cleveland 15, Ohio), June, 1958. 50 cents. This special report—to which most of the issue has been devoted—presents 12 feature articles on organizing for more efficient handling, relationship to other key functions of the business, costs and cost reduction, lease-or-buy arrangements, and problems of morale, training, and human relations.

MARKETING

A BASIC GUIDE TO SPECIALTY ADVERTISING. *Advertising Requirements* (200 East Illinois Street, Chicago 11, Ill.), July, 1958. Reprints 25 cents. Advertising specialties—useful products imprinted with advertising messages and distributed free—are effective in a number of ways, according to this article: they provide repetitive advertising, are inexpensive, go to selected prospects, and fit into varied media campaigns. Advice is given on how advertisers can use the technique most effectively to attract new customers, increase business with present customers, and improve public relations.

GOODS ON THE MOVE: NEW HORIZONS IN TRANSPORTATION. By Thomas Kenny and Carl Heyel. *Dun's Review and Modern Industry* (99 Church Street, New York 8, N.Y.), June, 1958. 75 cents. Covering 30-odd pages, this extra-emphasis feature explores current problems and new ideas for developing better and cheaper product transportation. Includes company case histories and the results of a survey of traffic management and distribution methods in 517 companies.

WORKING WITH BEHAVIORAL SCIENTISTS. By Joseph W. Newman. *Harvard Business Review* (Soldiers Field, Boston 63, Mass.), July-August, 1958. Reprints

\$1.00. Although management is calling with increasing frequency on motivation researchers for guidance in solving marketing problems, the author points out that in many cases these outside consultants meet with resistance from executives who feel that their own judgment is being reflected upon or who resent the introduction of new concepts and data that challenge their cherished beliefs. In order to employ behavioral scientists successfully, he maintains, there must be clear support from top management, an attitude of open-mindedness and objectivity, an effective research organization headed by a skilled director of marketing research, and a program of action taking into account the strategic and tactical implications of the research plan.

IS THE CANNED TALK SUDDEN DEATH ON SALES? *The American Salesman* (353 Fourth Avenue, New York 10, N.Y.), June, 1958. 50 cents. Interviews with salesmen and sales managers suggest that they're pretty evenly divided as to the merits of the company-prepared presentation vs. the individual's own talk. This article presents the opinions expressed on both sides, and describes how some companies have struck a happy medium with the "semi-canned" approach.

FINANCIAL

EVALUATION OF STOCK DIVIDENDS. By C. Austin Barker. *Harvard Business Review* (Soldiers Field, Boston 63, Mass.), July-August, 1958. Reprints \$1.00. What is the real effect of stock dividends on market price? In this article the author puts forth the theory that stock dividends alone, whether large or small, produce no lasting gains in market price for widely held stocks on national exchanges, although they can produce a substantial increase in the number of shareholders.

THE COST OF CAPITAL FUNCTION FOR A FIRM. By Robert M. Soldofsky. *The Controller* (2 Park Avenue, New York 16, N.Y.), June, 1958. 65 cents. A fundamental principle of capital budgeting is that the rate of return from any investment, new or old, should be equal to or greater than the cost of the money invested. But the costs of money vary with the type of capital used and they fluctuate with changes in external conditions. This article analyzes some of the factors that must be taken into ac-

count in computing the actual costs of the various types of "money" invested in a business.

HOW THE COURTS DISTINGUISH DEDUCTIBLE REPAIRS FROM DEPRECIABLE CAPITAL COSTS. By John B. Cook. *The Journal of Taxation* (147 East 50 Street, New York 22, N.Y.), June, 1958.

FOREIGN OPERATIONS

U.S. FOREIGN ECONOMIC POLICY. By Michael A. Heilperin. *Fortune* (9 Rockefeller Plaza, New York 20, N.Y.), June, 1958. \$1.25. In this concluding article in its series on world markets, *Fortune* argues for a new U.S. foreign economic policy that will lead to the dismantling of our tariff wall in the interests of free trade. The author presents some interesting refutations of the "dreary argument" that abolition of tariffs would cause the U.S. market to be flooded with cheap goods.

FINANCING YOUR OVERSEAS BUSINESS. By Alexander O. Stanley. *Dun's Review and Modern Industry* (99 Church Street, New York 8, N.Y.), June, 1958. 75 cents. Many companies have found that financing business activities overseas can be a lot tougher than finding markets for their products.

\$1.25. To accountants, the tests the courts use in distinguishing between repairs and capital items frequently appear confusing and contradictory. Based on an analysis of recent significant court opinions on this question, this article develops some general principles that should be helpful to the practicing tax man.

This article provides a comprehensive review of the public and private sources of credit and capital that are currently available, and of the conditions under which a company can take advantage of them.

BASIC RULES ON TAX LIABILITY OF U.S. CITIZENS EARNING INCOME ABROAD. By Marcellus R. Meek. *The Journal of Taxation* (147 East 50 Street, New York 22, N.Y.), June, 1958. \$1.25. When a U.S. citizen first earns income abroad, he is confronted with some rather technical rules setting forth tax benefits he may obtain—rules relating to credit for foreign taxes paid, to exemption from U.S. tax in certain circumstances, and to other special deductions. This article attempts to clarify the basic principles involved, with illustrative cases.

RESEARCH AND DEVELOPMENT

BUILDING PROFITS ON OUTSIDE INVENTIONS. By George S. Hastings. *Dun's Review and Modern Industry* (99 Church Street, New York 8, N.Y.), June, 1958. 75 cents. Many companies reject unsolicited inventions as fast as they come in—with one stroke cutting down both the danger of lawsuits and the chances of profitable new products. In this article, the vice president of American Machine & Foundry—a company with a highly diversified product line—tells how AMF succeeds, at minimum risk, in tapping outside sources of new ideas.

CAN CORPORATIONS ACT AS PARTNERS? By Charles O. Cary. *Harvard Business Review* (Soldiers Field, Boston 63, Mass.), May-June, 1958. Reprints \$1.00. To speed scientific progress and attain otherwise unachievable objectives in this era of complicated defense work and advanced technology, the author proposes a plan of corporate partnerships in research and development programs. Such joint ventures would eliminate much of the duplication of effort among competing companies and the "makework" projects now given scientists during production lulls.

The Industrial Climate for Creativity

(Continued from page 8)

Dr. Fred C. Finsterbach, an educational specialist: Too little of the encouragement given to technical people in industry has taken any form other than money. Monetary rewards assume that all men respond equally to the dollar as a motivating force. In my opinion, nothing is further from the facts. Once the necessities and a few luxuries are attained, the creative personality looks to intangibles for his motivation. Often, all he craves is the climate which allows him the freedom to be creative.

Lacking the status and prestige values and financial remuneration offered to those who follow the administrative line rather than the technical, a great many scientists and engineers are now directing their aspirations toward managerial careers. What are some of the factors that prevent maximum accomplishment and the feeling of personal gratification in the technical line? From a recent study by Deutsch & Shea of the attitudes of engineers, the following findings emerged:

1. Scientists and engineers feel that the salaries paid to management are substantially greater than the salaries paid to technical people. And this holds true even in companies where there is no objective basis for such an assumption. Further, while they are fully aware of and resentful of the salary ceilings in the technical area, they do not perceive any ceilings where management is concerned. Management to them is favored by more tangible and intangible opportunities.
2. They feel that ability and performance in management positions are valued more, whereas outstanding technical skill and talent often go unheeded.
3. They feel that the levels of authority and responsibility in management jobs are better defined. Also they often feel that the titles and positions of authority given to them are without meaning, are merely palliatives to make them more satisfied with their lot.
4. They impute the real image of success and status, both among their superiors and colleagues as well as among their relatives and people in their communities, to men who progress along the management hierarchy.

These assumptions operate as powerful inducements for the scientists and engineers to change their careers. The real or imagi-

nary absence of those inducements in the technical area make many scientists and engineers dissatisfied with their progress as scientists and engineers.

TOO MUCH EMPHASIS ON GROUPTHINK?

Another deterrent to the emergence of significant creative contributions was seen in the popular teamwork and collaborative projects so much in fashion nowadays. Team research in science and various group techniques in industry, notably brainstorming, have largely replaced the individual investigator. There were many panelists who questioned the wisdom of collaborative enterprises in the creative realm:

Dr. Leo Steig of General Electric Company: The creative nature of the inventive process is an individual characteristic and not generally a group characteristic. Certain aspects of our culture tend toward group activity. Group thinking, "brainstorming" and other attempts at group creativity in the creative process probably are not major factors in scientific creative achievement.

Paul Trentham, Westinghouse Electric Corporation: We cannot get away from the fact that an idea, whether it is the Big Idea or whether it is a small idea within the Big Idea, originates in the mind of a single man.

Perry R. Mason, Course Development Engineer of the Creative Engineering Program at General Electric Company: Our culture is tending to emphasize group activity and to minimize contribution and encouragement of the individual. A group atmosphere is not generally stimulating to the development of creative talent.

Dr. Franklin J. Shaw of Purdue University: People exhibiting creative thinking talent are likely to have strong needs to work alone a good share of the time and to be left on their own without pressures being exerted upon them to become good organization men.

There is little doubt that in the realm of highest creativity there is only one creative instrument: the individual mind and spirit of the creator. The landmarks of scientific invention have been established by a handful of lone investigators. Like the late Albert Einstein, the majority of them admit that they are "horses for the single harness and not cut out for tandem or teamwork."

This is not to gainsay the importance of group effort or to minimize the value of stimulation in discussion, pooling of knowledge, and exposure to different viewpoints that this entails. Much can be gained, obviously, through democratic group discussion that cannot be had in any other way. The sad thing, however, is that our per-

sistent emphasis on collaborative projects has tended to suppress individual initiative and independence. We hardly allow anybody any more to exercise their individuality apart from a group. These individuals who venture out alone do it at their own peril. Both economically and socially we make it increasingly difficult for an individual creator to exercise real creative freedom.

With the emphasis so much on "groupthink," it is not surprising that group ideational techniques have mushroomed—the most widespread and popular of which is brainstorming. What this technique, and variations thereof, generally add up to, is a proliferation of small, superficial ideas useful only for developing gadgets, gimmicks and twists. A fine appraisal of such techniques was made by one panelist, Professor Brewster Ghiselin of the University of Utah, the author of the book, *The Creative Process*. He crystallized the growing recognition of the inherent shallowness in such techniques:

We are beginning to encourage cultivation of tricks and the use of formulae for solving problems and producing devices. This increases efficiency without favorably affecting talent. Cultivation of creative talent is a *vital discipline* or it is nothing. . . . Team action guided by a formula, as in "brainstorming" is too mechanical and rudimentary to serve the needs of highly creative minds. It can only encourage the timid and stimulate the habitually inactive to do more than they would if left to themselves.

JUST "EGGHEADS"?

Recent polls of young people's attitudes toward scientists and their work show that a series of incredibly warped stereotypes have gained wide currency. But aside from the distorted picture they have of the scientific career, one can sense in their statements an undertone of hostility toward the life of what is popularly referred to as "the longhair," "the doubledome," or "the egghead." This negative attitude toward creative scientists, however, is not an exclusive property of the younger set. Many of our adults too, according to the panelists, are afflicted with the collective hostility toward creative people. Though in industry these negative attitudes toward creative people are not as marked, many in the management hierarchy regard them with suspicion or consider them odd. Typical of the panelists' comments about the prevalent negative attitude toward creative people were the following statements:

Professor William H. Middendorf of the University of Cincinnati: Until recently an inventor was thought to be queer and supposed to be content to live by himself in a dirty one-room apartment. Thus talented people sought careers in other fields.

A senior engineer at a big electronics company: Creative talents are often misconstrued by our society as being eccentric or nutty, and this attitude tends to stifle all but the true genius.

A staff member of the Carnegie Institute of Technology: The truly creative person is often looked down on as "different" or out of step with life. He does not receive the recognition he deserves or the pay—unless he "creates" advertising.

Professor Franklin J. Shaw of Purdue University: Creative people may often demonstrate oddities of habit and conduct, keep strange hours, say strange things because they do see things in ways alternative to the standard and established, and so on. They, therefore, are not likely to win popularity contests, but we do think it is a good thing to be popular, "to get along," to keep our peculiarities in check, etc. Our intolerance of unpressed pants and overdue haircuts doesn't speak too well, really, for our understanding and appreciation of individuals possessing creative-thinking talent.

WHAT MANAGEMENT CAN DO

While there are certainly companies—notable among them, General Electric and Bell Telephone Laboratories—that have provided their technical people with environments conducive to creativity, in too many companies the creative process is still thwarted.

If the managements in these companies sincerely desire creativity and are prepared to take the calculated risks involved, then they *can*, by being responsive to the particular needs and requirements of creative personnel, establish a favorable climate. Following is a capsule summary of the panelists' suggestions:

1. Make a greater effort to understand creative people, their powers and foibles, their motives, frustrations, and enthusiasms.
2. Acquire a better understanding of the nature of creativity and the creative process.
3. Recognize the internal and external incentives to creative effort. Provide proper motivation.
4. In recognition of the part creative research plays in modern industry, be willing to take more chances and calculated risks.
5. Give research its deserved place in long-term plans and keep researchers informed about company operations, policies, goals, and problems.

6. Provide moral support for worthwhile creative projects. Show more confidence that research people *will* be creative in their solutions to problems, and recognize progress when it has been made.

7. Provide adequate, concrete rewards for the researchers' contributions. Establish incentives for success, and see to it that individuals receive proper recognition for their ideas.

8. Have an open-minded, receptive, "let's-take-it-from-there" attitude. Consider recommendations. Accept the long-range goals and objectives of research.

9. Keep creative researchers informed of broad areas of interest to their companies, so that they can choose their areas of concentration with enthusiasm.

10. Demonstrate, in the day-to-day, the sincerity of published objectives and policies.

11. Insist upon selection procedures that will "screen in" genuinely creative personnel. Eliminate misleading selection methods and tests from the screening procedures. Stop hiring people primarily on the basis of their ability to get along with others.

12. Consider individual personalities in making assignments and in appointing leaders and research managers. Seek out, develop, and encourage those with creative ability.

13. Avoid regimentation and gearing of efforts to a rigid timetable. Realize that pressure for a desired result often hampers creativity, that informality and freedom are necessary to spontaneity of creative thought.

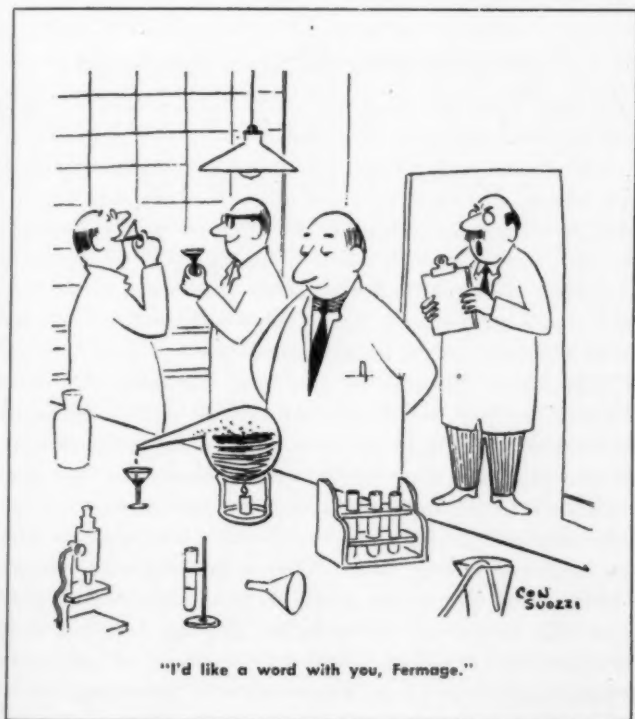
14. Maintain open communications channels, up and down.

15. Give prestige to creative people. Give them status corresponding to their abilities and training. Dignify the work of the basic scientist or researcher.

THE CREATIVE CLIMATE

Creativity is extremely sensitive and responsive, for better or for worse, to the psychological environment and attitudes prevailing within an organization. And since there is little doubt that the

climate for creativity originates at the top, management must look to its own values and operating philosophy, if it seriously wishes to foster innovation and to encourage its creative people to put forth their best efforts. For creativity cannot flourish, or even long survive, in a vacuum—and few companies in this highly competitive era can afford to try to get along without it.



—The Wall Street Journal

Common Sense About Cutting Costs

(Continued from page 13)

results of this kind of analysis are sometimes surprising. Relative newcomers, who would have been laid off under traditional cost-reduction procedures, may show great potential. On the other hand, some of the old-timers who are supposed to be carrying broad responsibilities may actually be over their heads and incapable of bearing up under the increased pressures. It may even develop that a few high-talented and high-priced people should be hired in order to strengthen soft spots. The result may be immediate cost reductions in some areas and temporarily increased costs in others. In all cases, however, the decisions reached must stem from a systematic evaluation of people, and of their potential for achieving objectives which have been clearly defined.

AID IN DEFINING PROBLEMS AND GOALS

Focusing attention on people forces management to ask itself many questions about matters that are too often bypassed in the pressure of day-to-day business. In order for management to determine whether the company's executives have the qualities it most needs, it is necessary to identify and spell out what those qualities are. And in order to do this it is necessary to clarify organizational objectives—immediate and long-range, specific and broad. In other words, turning attention to people helps management define its own special problems and its organizational goals.

There are no formulas for increasing the value of our human resources. In fact, one of the most difficult and disturbing things about working with and developing people—especially for men who are used to dealing with machinery and figures—is that there are no clear-cut, black-and-white answers. Some managers, intrigued by the idea of increasing human efficiency, but impatient with the complexities of human nature, become involved with systems and techniques that purport to reduce human characteristics to exactly measurable dimensions. Temporarily, they are delighted to find a technique that gives them numerical assessments of people, thereby seeming to eliminate the need to wrestle with the intangibles. Sooner or later, however, such managers find gross discrepancies between

some of their numerical pigeonholes and the actual performance of individuals. They are then prone to abandon all efforts to think systematically about human resources, instead of recognizing the superficiality of their initial approach.

When a manager begins seriously to study the human resources in his organization, he almost invariably finds the process satisfying and enlightening, despite its occasional confusions. He comes to understand that each individual has certain limitations as well as assets, and that virtually no one has fully realized his potentials. When he begins to think in these relative terms about people, he is able to start moving in appropriate developmental directions from the standpoint not only of his people but of the organization as a whole. As the president of one manufacturing company expressed it, "I used to think a man was either doing a job or not doing it. If I thought he was doing a job, I forgot about him. If he wasn't, I fired him. Now I see that there are lots of different ways and degrees of doing jobs, and I am just as much concerned with helping our best men get better as I am with gradually eliminating the least able and those who won't or can't grow."

A HARD CORE FOR THE FUTURE

There are many possibilities for cost savings as well as for quality improvement in focusing attention on human resources. The ablest individuals are identified sooner so that their skills can be more effectively used and developed.

Able and courageous managers always keep future directions in mind while coping with present problems. In times of economic contraction, they may be forced temporarily to reduce their personnel at all levels, but they have to be ready to move with the upswing when it comes. It would seem obvious that this is the time to build a hard core of the ablest people available in well-planned age and experience groupings. Yet many managers allow this golden opportunity to slip through their fingers. They may not even know whether they are losing able people or dead wood in the course of layoffs that do not take sufficient account of ability or potential.

Any well-planned program involving people (particularly in a period of contracting economic conditions) entails difficult decisions which must be based on probabilities rather than certainties. Some

managers who appear very hard-bitten on the surface are unable to be decisive when it comes to taking important actions affecting people. They consequently allow serious personnel weaknesses to develop and make any personnel reductions on an impersonal, across-the-board basis rather than giving the kind of individual attention to people that would result in quality improvement as well as cost reduction.

Similarly, managers who decry sentiment in business often allow their feelings and prejudices to cloud their thinking when it comes to such actions as advancing a young man faster than tradition would seem to dictate, or in deciding to terminate or demote an incompetent person—especially in the older age groups. They temporize with these issues instead of facing up to them with courage and imagination.

Without demoralizing others in the organization, however, ways can be found to give an outstanding young executive a chance to prove himself equal to bigger things. Surprisingly, too, it may come as something of a relief to the older executive who is in over his head to be retired early on a reasonable pension, or at least to have his responsibilities adjusted to his declining capacity.

Obviously, decisions about people are not easy if they in any way threaten to disturb the status quo. They are, however, essential to a double-edged program of quality improvement and cost reduction. Making better use of human resources remains for most companies the most important step in improving their over-all operation. Those who have the courage to take that step will find themselves well ahead of so-called competitors who are still thinking in narrow, defensive terms about cost reduction.

TAKE BACK YOUR GOLD: Not all workers are demanding wage increases these days, according to *Steel* magazine. Local 669 of the Allied Industrial Workers and Local 1 of Metal Polishers & Platers Union have agreed to a 12.5 per cent wage cut to enable Douglas & Lomason Co., a Detroit plating firm, to remain competitive. And employees of McKay Machine Co., Youngstown maker of mill equipment, voted overwhelmingly to pass up a pay increase last July 1. They are not unionized, but generally follow steel industry patterns.

Office Automation

(Continued from page 18)

in nearly specific enough terms. But it is business that will have to find the immediate solution through in-company training programs and extensive allocations of time and funds for training.

Another thing businessmen are going to have to learn is how to administer programs of basic research. There is a great deal we do not yet understand about how best to use a computer—a scientific instrument now being adapted to business use—to analyze and improve business organization and practices. This phase has some elements of a business problem and some of a genuine scientific research problem, since it demands the application of scientific, often mathematical, methods to the problems of the business world.

Business application of these methods has not been very satisfactory. One reason is that management has looked to the mathematician or scientist to come into the company with his magic bag of equations to analyze the problem. As often as not, the scientist has naively accepted the invitation, completely underestimating the complexity of the business problem, wallowing around for months or even for years, and achieving little or nothing in the way of useful results.

WHAT KIND OF EDUCATION?

The task here faced by the businessman is to bridge this gap between business problem and scientific solution and to administer research efforts that are basic in character. It is no easy problem. The immediate educational burden imposed by automation is one that must be solved largely in the business world. But it does not end there; business cannot be expected to shoulder the long-term educational problem alone. In the long run, it must depend on the high schools and colleges to do the job for which they were established. But even then, it is the responsibility of business to make clear its real needs. Its influence can be important, perhaps crucial, in determining what kind of education will be offered.

The most important requirement of the new education is high quality. We have all heard a lot of talk about the current shortage of engineers. Every year, we are told, this nation falls some thous-

ands short of the number needed; by 1970, according to the U.S. Office of Education, we will require 50,000 to 60,000 new engineers a year, twice as many as we graduated in 1956. We hear much less about the *quality* of the engineers we are turning out and about the kind of training they are getting.

In the age of automation and other complex new technical developments, Professor Gordon S. Brown of M.I.T. has pointed out, "those electrical engineers who learned only to go to the handbook for recipes having to do with generators, transmission lines, or telephones are not prepared to cope with new developments, much less to contribute to them . . . We believe we should prepare students not only for electrical engineering as it exists today but to play a creative role in and to lead the electrical engineering of tomorrow."

THE NEED FOR GENERALISTS

Business, too, is coming to recognize that narrowly specialized training is precisely the wrong kind of training for the men who will be expected to play a creative role in designing and building machines for an age of automation. "Teach your students the basic principles which will never change," one industrialist has urged. "Don't teach them current engineering practice. If you teach them current practice, the chances are that it will not be the practice of my company, and if it is, the practice will be obsolete before the students can use it." One real contribution businessmen can make is not only to support but to spread this point of view.

But beyond this, there is an even larger educational problem that affects all of us. Despite all that has been said about automation's narrowing of man's role, everything I have seen in the actual evolution of automation in the last eight or ten years convinces me that there will be an increasing importance and a greater role for the individual. And there is one thing of which I am certain: *Automation is going to demand far better educated men, in the fullest sense of the word.*

The easiest mistake one can make, and certainly the most common, is to assume that scientific training must be the root of all education in the future, and that only those trained as scientists will play important roles. This is a mistake not because technology is unimportant but because what is truly important, both for tech-

nology and for society as a whole, is orderly thinking—and orderly thinking is neither necessarily nor exclusively developed by studying science.

ADJUSTING TO CHANGE

Automation, and technological advances as well, demand an ability to adapt to rapid change. Change in our frame of reference is continual and is increasing rapidly. Training in specific skills, greater and greater specialization, is a desperate and misguided reaction to such change. It is self-defeating, for today's specialty is replaced by tomorrow's new need.

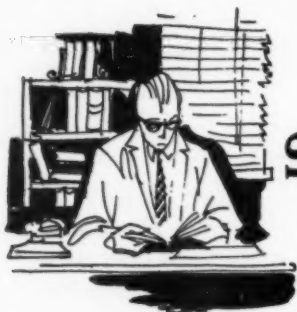
The main task, then, is to train people who can adapt to change. We must do this with managers and we must do it with workers. And in choosing our methods, we can do no better than to heed the advice the philosopher Alfred North Whitehead gave more than 25 years ago, for it is even more true today: "It is of no use to train the young in one very special process which will probably be superseded before they are middle-aged. Give them alert minds exercised in observation and in reasoning, with some knowledge of the world about them, and with feeling for beauty."

Our Long-Lived Population

THE INCREASING LONGEVITY of the American people is evident in the detailed estimates of total U.S. population as of July 1, 1957, by age, color, and sex, recently released by the Bureau of the Census. Since the 1950 census, total population increased by 20 million (13.3 per cent) to 171.2 million. Persons 65 and over, however, increased by 21 per cent (more than 2.5 million) to a total of more than 14.7 million. Those in the 45-to-64 age group increased at a rate slightly less than the total population, while the 18-to-24 age group showed an actual decrease of 4.7 per cent.

As expected, the 5- to 13-year-olds—the post-war babies—showed the biggest gain: 35.5 per cent (7.9 million), making a current total of more than 30 million persons in this group.

The more rapid increase in longevity among women is also demonstrated by the Bureau's figures, which showed an increase to 118 women per 100 men in the over-65 age group.



SURVEY OF BOOKS FOR EXECUTIVES

MANAGING GEOGRAPHICALLY DECENTRALIZED COMPANIES. By George Albert Smith, Jr. Division of Research, Harvard Business School, Boston, Mass., 1958. 185 pages. \$3.50.

*Reviewed by Walter B. Schaffir**

In this study, Professor Smith tackles what is perhaps the most crucial organizational problem in today's multiplant companies: The delineation of authority between divisional plant management on one hand and top management on the other. The author brings a good deal of insight to bear on this problem, derived from his 20 years of involvement with it. He gives detailed attention to the human problems that are both the cause and effect of various organizational arrangements and to the consequences of excessive or insufficient decentralization. His discussion of the time- and energy-consuming processes through which workable organizational schemes evolve in practice—all too often lacking in textbooks on the subject—is also most realistic.

* Staff Assistant—Management, Sperry Gyroscope Company, Division of Sperry Rand Corporation.

Professor Smith's approach is in the typical Harvard case-study tradition. It is thus strong on the intimate detail that comes only from specific involvement and experience. The material tends to focus on a few relatively small multiplant organizations with which the author has been particularly closely associated over the years. Though others are treated as well, more material relating to some of the larger decentralized corporations might have been included.

While the author himself concedes that "generalization based on such a [small] sample cannot be regarded as scientifically verified" and that "this is not the kind of study that involves collecting, computing, and interpreting statistical data," the book should bear out his hope that "this beginning may induce other researchers to push investigation still further."

The scope of the book may be deduced from Professor Smith's statement of its aims:

1. To highlight some of the semantic problems in the field of organization.
2. To highlight the need for matching organization structure with business and economic objectives.
3. To alert business management

to the benefits of systematic organization planning.

4. To examine the problem of fitting people and jobs, with particular regard to the peculiar requirements of geographically decentralized organizations.

5. To alert management to the human problems entailed in decentralization, some of which cannot be expected to be solved completely (a particularly good discussion).

6. To stress the assistance that top management can expect from lower echelons in forging organizational (and other) plans.

As in any such treatise, there are a number of technical points that could be disputed. In his attempts, for instance, to highlight the difficulties of decentralization, it might have been desirable for the author to have emphasized that the disadvantages of the likely alternatives are often even more distressing.

Much of the discussion, particularly on organization planning, staff-

ing, etc., is not peculiar to decentralization, but is, necessarily, generally applicable. There are several good common-sense suggestions for assessing the value of headquarters staffs and some enlightening sketches of the personal qualifications required at various managerial line and staff levels. There are good presentations also of the difficult problems of status loss arising from reorganization, as well as those concerning the introduction of change.

This book should make enjoyable reading for business executives and organization specialists alike. The author writes with modesty, insight, and sensitivity in a difficult and often controversial area of corporate organization. He has produced an excellent addition to the qualitative treatment of decentralization that serves to underline the need for more quantitative research before management is able to base its decentralization decisions on verifiable principles and relationships.

Briefer Book Notes

(Please order books directly from publishers)

GENERAL

TOWARD THE LIBERALLY EDUCATED EXECUTIVE. Edited by Robert A. Goldwin. The Fund For Adult Education, White Plains, New York, 1957. 111 pages. Single copies, gratis; additional copies, 50 cents each. Selected papers on the value of a liberal education. Among the subjects discussed are the aims of education, liberal education for business leadership, Bell Telephone's experiment in education, and social innovation.

THE MASS COMMUNICATORS: Public Relations, Public Opinion, and Mass Media. By Charles S. Steinberg. Harper & Brothers, New York, 1958. 470 pages. \$6.00. A comprehensive text on public relations and its relation to public opinion and mass media. Among the subjects covered are mass com-

munication, measuring public opinion, the mass media, public relations in practice, and propaganda and ethics. Case histories in public relations are drawn from various fields, including business, education, and government.

JUNIOR BOARDS OF EXECUTIVES: *A Management Training Procedure.* By John R. Craf. Harper & Brothers, New York, 1958. 162 pages. \$3.50. A report on the use of junior boards of executives in 21 companies. Among the aspects covered are memberships, by-laws, operational methods, rating procedures, and accomplishments. The book concludes with an evaluation of the system as a tool of management development.

BRAINSTORMING: *The Dynamic New Way to Create Successful Ideas.* By Charles H. Clark. Doubleday & Company, Inc., Garden City, N. Y., 1958. 262 pages. \$4.50. A popular self-help presentation of brainstorming and how to apply it in business, community organizations, and the family. Among the subjects presented are how to set up a brainstorming session, how to sell brainstorming to one's boss, and how to look at the world creatively. Numerous company case histories are included.

ATOMS FOR POWER: *United States Policy in Atomic Energy Development.* The American Assembly, Columbia University, New York, 1957. 159 pages. \$1.00. Background papers and final report of the Twelfth American Assembly on United States policy in atomic energy development. Among the topics discussed are the environs of atomic power, the atomic power program in the United States, an appraisal of the United States nuclear power program, and American foreign policy and the peaceful uses of atomic energy.

FINANCIAL

MODERN BUSINESS STATISTICS. By John E. Freund and Frank J. Williams. Prentice-Hall, Inc., Englewood Cliffs, N. J., 1958. 539 pages. \$10.00. This introductory textbook on business statistics covers statistical inference as well as the more traditional descriptive statistics. Among the topics discussed are probability, problems of estimation, tests of hypotheses, linear regression, index numbers, and time series analysis. A discussion on quality control methods is appended.

THE ECONOMICS OF INDUSTRIAL MANAGEMENT. By Walter Rautenstrauch and Raymond Villers. Funk & Wagnalls Company, New York, 1957. 488 pages. \$7.50. A revised edition of a volume on the break-even analysis method originally published in 1949. The statistical data have been brought up to date and more emphasis is placed on the use of the electronic computer for accounting, production control, and differential profit control.

COST ACCOUNTING. By Charles F. Schlatter and William J. Schlatter. John Wiley & Sons, Inc., New York, 1957. Second edition. 725 pages. \$7.25. In this revised edition of a textbook originally published in 1927, the authors stress the importance of cost analysis for cost control and other managerial purposes. The topic of standard costs is now introduced early in the work, and other changes include new material on direct costing, a new treatment of distribution cost accounting, and an expanded discussion of control of factory overhead costs. New illustrations and problems have also been added.

SAVING TAXES THROUGH CAPITAL GAINS. By Arno Herzberg. Prentice-Hall, Inc., Englewood Cliffs, N.J., 1957. 430 pages. \$12.50. This tax-saving guide discusses capital gains techniques that apply to individuals, partnerships, and corporations, as well as to such groups as investors, executives, real estate owners, professional men, and farmers.

FOREIGN OPERATIONS

LICENSING IN FOREIGN OPERATIONS. Lawrence J. Eckstrom. Foreign Operations Service, Essex, Conn., 1958. \$18.50. This comprehensive handbook for the foreign trader covers such topics as the preliminary market and marketing research, license negotiations, the license agreement, patents and trademarks, know-how agreements, and the licensing process. Taxation and equipment leasing in foreign operations are also discussed. License agreement forms, a bibliography, and sources of information and assistance are included in this clearly written and practical presentation of a technical subject.

THE JAPANESE FACTORY: *Aspects of Its Social Organization.* By James G. Abegglen. The Free Press, Glencoe, Ill., 1958. 142 pages. \$3.50. An analysis of the social relationships within Japanese factories based on the author's studies of 53 large and small plants in a variety of industries. Among the aspects discussed are the recruitment of personnel, rewards and incentives, rank, careers and the formal organization, productivity, and the factory's place in the employee's world.

THE CANADIAN MARKETS. Compiled by J. Walter Thompson Company. McGraw-Hill Book Company, Inc., New York, 1958. 178 pages. \$18.00. A practical guide to Canadian sales opportunities that provides a statistical and descriptive survey of the country as a whole, as well as of the individual provinces and territories. It covers such marketing facts as population and characteristics, the land and its climate, mineral and vegetable resources, energy and power, manufacturing, income and standard of living, consumption and distribution, and private and public capital expenditure. Estimates of future developments, maps, and sources of basic information are also included.

WORLD GEOGRAPHY. Edited by Otis W. Freeman and John W. Morris. McGraw-Hill Book Company, Inc., New York, 1958. 623 pages. \$10.75. This introductory textbook on world regional geography describes geographic areas in terms of physical environment, as well as such aspects as cities, industries, and other economic and cultural activities. Specialists have contributed chapters on the various countries and areas covered. The volume is attractively illustrated with photographs and maps including a 16-page world atlas in color.

PRIVATE INVESTMENT: *The Key to International Industrial Development.* Edited by James Daniel. McGraw-Hill Book Company, Inc., New York, 1958. 282 pages. \$5.00. Proceedings of the International Industrial Development Conference sponsored by Time-Life International and Stanford Research Institute in October, 1957. Businessmen, government leaders, and specialists

from various countries discuss such topics as the world's population explosion, the high cost of money, the safety of capital, the renaissance in Germany, the exchange of industrial techniques, managers for tomorrow, and science and economic progress.

ANTITRUST AND AMERICAN BUSINESS ABROAD. By Kingman Brewster, Jr. McGraw-Hill Book Company, Inc., New York, 1958. 509 pages. \$12.00. A comprehensive study of the antitrust laws as applied to American business abroad. Following an analysis of the problems and history of antitrust legislation in foreign commerce, the legal risks in exports, licensing, and ownership of foreign enterprises and the impact of the law on business decisions are examined. The work concludes with an evaluation of present law and policy along with various proposals for changes, particularly in the administration of the law.

INTERNATIONAL TRADE: Goods, People and Ideas. By Wendell C. Gordon. Alfred A. Knopf, New York, 1958. 667 pages. \$6.75. This comprehensive introduction to international economics is an attempt to integrate current thinking in the field into a coherent whole. Starting with an account of the development of the traditional theory of international trade, the author proceeds to examine in detail the balance of payments and national income theory, the movement of goods and services across national boundaries, international finance and capital investments, and the international aspects of economic growth. A comprehensive bibliography is provided.

INSURANCE

BUSINESS INTERRUPTION PRIMER: Fourth Edition. By John D. Phelan. The Rough Notes Co., Inc., 1142 North Meridian Street, Indianapolis 6, Ind., 1957. 87 pages. \$1.50. Though written primarily for the insurance agent, this new edition covers the important developments in the business interruption insurance field that have occurred during the past three years, and explains both why a business needs this type of coverage and how much it requires.

ESSENTIALS OF INSURANCE LAW: Second Edition. By Edwin W. Patterson. McGraw-Hill Book Company, Inc., New York, 1957. 558 pages. \$7.50. A thorough revision of the first edition, which was published in 1935. Chiefly devoted to the making, validity, and enforcement of insurance contracts, and written with a minimum of legal language, the book covers the most important doctrines of insurance law, relating it wherever possible to the principles and practices of the insurance business.

MULTIPLE-LINE INSURANCE. By G. F. Michelbacher. McGraw-Hill Book Company, Inc., New York, 1957. 660 pages. \$8.75. A revision of an earlier work—*Casualty Insurance Principles*—this book has been broadened to cover the revolutionary changes that have taken place in the insurance business over the past 15 years. Among recent developments covered are rating problems; government regulations; the broadening of the field of casualty and fire and marine insurers to the writing of multiple-line insurance; and, in general, the new problems arising from the shift from narrower compartments to multiple lines.

Publications Received

(Please order books directly from publishers)

REVOLVING CREDIT. *Business Management Survey No. 6.* By Robert H. Cole. Bureau of Business Management, College of Commerce and Business Administration, University of Illinois, Urbana, Ill. 1957. 69 pages. \$2.00.

THE PERSISTENCE OF SMALL BUSINESS: *A Study of Unincorporated Enterprise.* By Eugene C. McKean. The W. E. Upjohn Institute for Community Research, 709 South Westedge Avenue, Kalamazoo, Mich., 1958. 65 pages. Gratis.

A DECADE OF CO-OPERATION: *Achievements and Perspectives.* By the Organisation for European Economic Co-operation, 1346 Connecticut Avenue, N.W., Washington 6, D.C., 1958. 187 pages. \$2.00.

BUSINESS PLANNING FOR ECONOMIC STABILITY. By Henry Thomassen. Public Affairs Press, 419 New Jersey Avenue, S.E., Washington 3, D.C., 1958. 60 pages. \$2.50.

MAKE YOUR MIND WORK FOR YOU. By Jean Guittou. The Macmillan Company, New York, 1958. 87 pages. \$2.75.

ELECTRONIC ENGINEERS MASTER: *Catalog and Directory of Electronic Products Sold Direct to Manufacturers.* By Tech Publishers, Inc., 60 Madison Avenue, Hempstead, N. Y., 1958. 1096 pages. \$7.50.

STATISTICAL YEARBOOK, 1957. By the Statistical Office of the United Nations. Columbia University Press, 2960 Broadway, New York 27, N. Y., 1957. 674 pages. \$8.00.

THE NETWORK OF INTRAEUROPEAN TRADE. By the Organisation for European Economic Co-operation, Suite 1223, 1346 Connecticut Ave., N.W., Washington 6, D.C. 1957. 217 pages \$3.00.

STUDIES IN THE MATHEMATICAL THEORY OF INVENTORY AND PRODUCTION. By Kenneth J. Arrow, Samuel Karlin, and Herbert Scarf. Stanford University Press, Stanford, Calif., 1958. 340 pages. \$8.75.

COMPANY PLANNING AND PRODUCTION CONTROL: *The Story of a Manufacturing Company.* By the European Productivity Agency of the Organisation for European Economic Co-operation, 1346 Connecticut Ave., N.W., Washington 6, D.C., 1958. 92 pages. \$1.00.

DISTRIBUTION COSTS: A Key to Profits. American Marketing Association, 27 East Monroe Street, Chicago 3, Ill., 1958. 27 pages. \$2.00 to nonmembers; \$1.00 to members.

BUSINESS MATHEMATICS: Principles and Practice, Complete. Fifth edition. By R. Robert Rosenberg and Harry Lewis. Gregg Publishing Division, McGraw-Hill Book Company, Inc., New York, 1958. 560 pages. \$3.84.

A GUIDE TO MANAGEMENT ACCOUNTING. By H. W. Broad and K. S. Carmichael. Essential Books, Fair Lawn, N. J., 1957. 152 pages. \$3.25.

MODERN COMPUTING METHODS. By the Philosophical Library, Inc., 15 East 40 Street, New York 16, N. Y., 1958. 129 pages. \$8.75.

AMA CONFERENCE CALENDAR

SEPTEMBER - NOVEMBER, 1958

<u>DATE</u>	<u>CONFERENCE</u>	<u>LOCATION</u>
September 22-24	FALL PERSONNEL CONFERENCE	Statler Hotel, New York
September 25-26	SPECIAL MARKETING CONFERENCE on Planning Sales for 1959	Statler Hotel, New York
October 6-7	SPECIAL MARKETING CONFERENCE on the District Sales Manager	Statler Hotel, Los Angeles
October 8-10	RESEARCH AND DEVELOPMENT CONFERENCE on Planning Products that Sell	Biltmore Hotel, New York
October 15-17	SPECIAL FINANCE CONFERENCE: Timing the Upturn—Evaluating and Using Business Indicators	Roosevelt Hotel, New York
October 22-24	OFFICE MANAGEMENT CONFERENCE	Statler Hotel, New York
October 27-29	MANUFACTURING CONFERENCE: Cost Management and Profit Improvement	LaSalle Hotel, Chicago
November 6-7	SPECIAL MARKETING CONFERENCE on the District Sales Manager	Roosevelt Hotel, New York
November 17-19	INSURANCE CONFERENCE	Drake Hotel, Chicago

To register or to obtain additional information on any of the conferences listed above, please contact Department M9, American Management Association, 1515 Broadway, New York 36, N.Y.

R
Cost reduction in the office . . .

OFFICE MANAGEMENT CONFERENCE

October 22-24, 1958

Statler-Hilton Hotel, New York City

el,
el,
k
el,
es
el,
k
Hotel,
k
Hotel,
rk
Hotel,
rk
Hotel,
o
Hotel,
rk
Hotel,
go
ve, plans
36, N.Y.
REVIEW

THIS YEAR'S Office Management Conference makes it clear that efficiency in office services *can* puncture ballooning costs. Featuring a group of outstanding executives, the Conference will cover in detail current approaches that are paying off:

- Establishing a partnership between management needs and office services
- Organizing to keep costs down and services up
- Making the most of office automation

And you'll hear two panel discussions on important subjects:

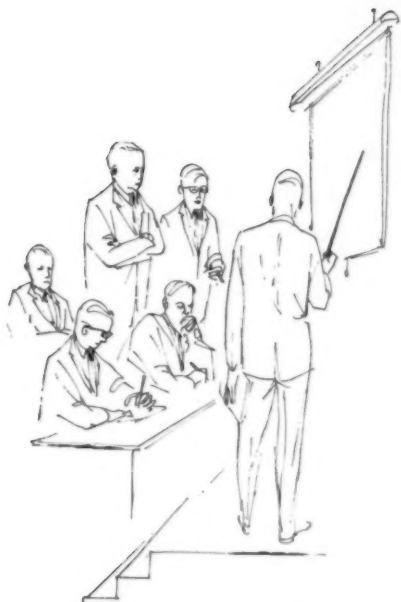
1. *One will present a strong dissenting opinion on the all-too sturdy notion that there is no way to keep an accurate check on office activities. The members of the panel will show why and how office operations can be measured and evaluated to improve profits . . . and rated to establish priorities and standards in expenditures.*
2. *The other—composed of members of AMA's Office Management Planning Council—will outline the techniques for achieving real and immediate savings through office cost reduction . . . thus eliminating the paradox of "good intentions and bad results."*

Other subjects that will receive the attention of leaders in the field:

- The philosophy of work simplification
- The efficiency of the older employee—utilizing his knowledge and experience
- Pointers for a well-organized housekeeping program

Plan now . . . and use the Conference to keep your office services headed towards ideal efficiency. Write to Department M9, Office Management Division, AMA.

AMERICAN MANAGEMENT ASSOCIATION, INC.
1515 Broadway • Times Square • New York 36, N.Y.



SELLING

Executives find many meanings in the term *selling*.

The marketing man sees it as a way of getting more of his company's products into consumers' hands. Other managers find their selling problems when they face their superiors and associates and seek acceptance of their ideas and plans.

Success in each area of *selling* demands careful attention to method and technique. At AMA's Marketing Course and the Course in Field Management of Salesmen, executives get the training they need to become expert in coordinating and directing all customer-focused activities. Other AMA courses and seminars show the manager how to get his associates to "buy" the management strategy he wishes to translate into action.

Today, with extraordinary emphasis on smarter and harder selling of both kinds, AMA's integrated program of courses, conferences, and seminars becomes a vital management tool. AMA services and publications broaden the scope of this assistance.



EDUCATION IN DEPTH
FOR MANAGEMENT, OF MANAGEMENT, BY MANAGEMENT

